

Figure 1

BEST AVAILABLE COPY

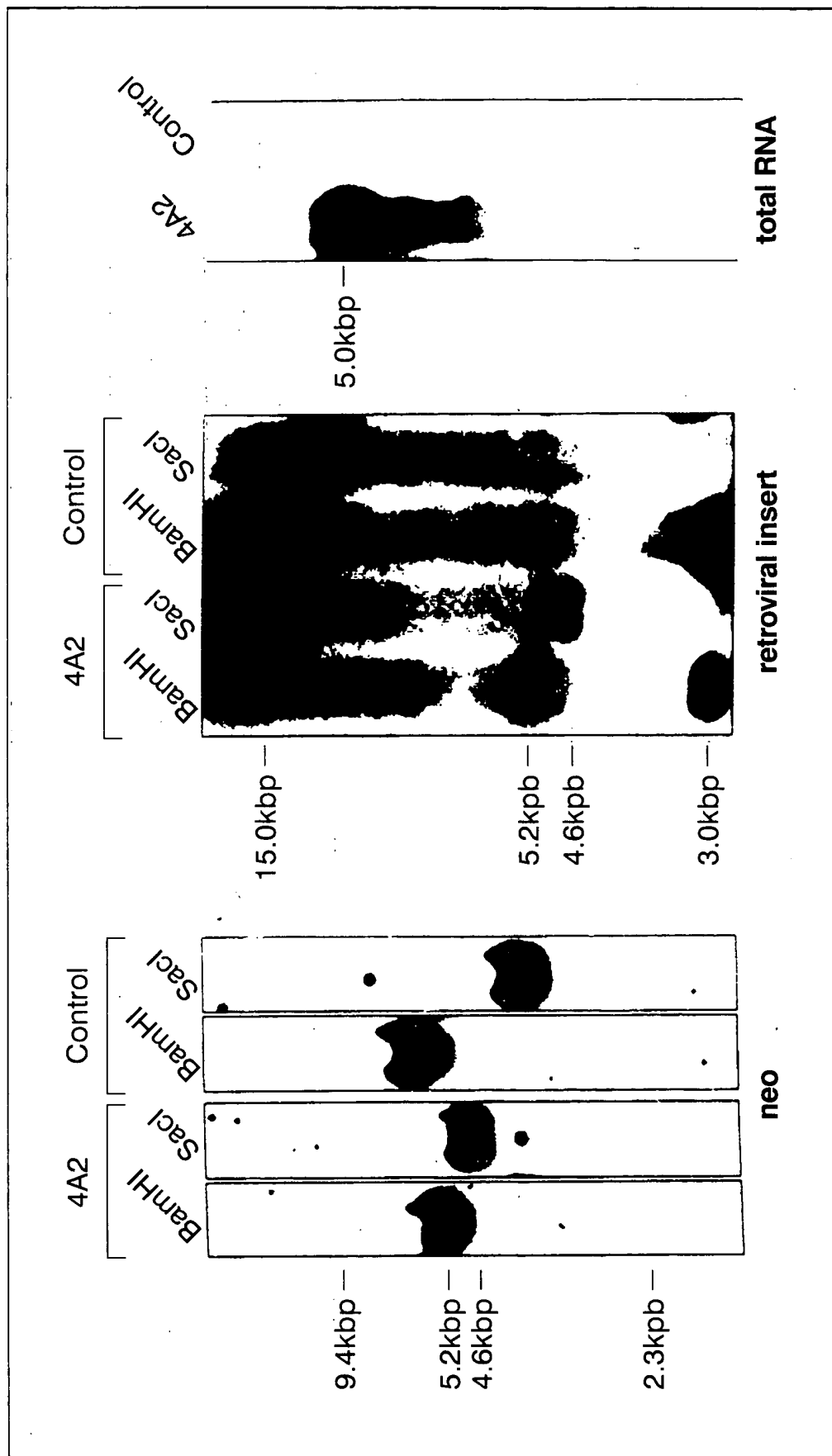


Figure 2

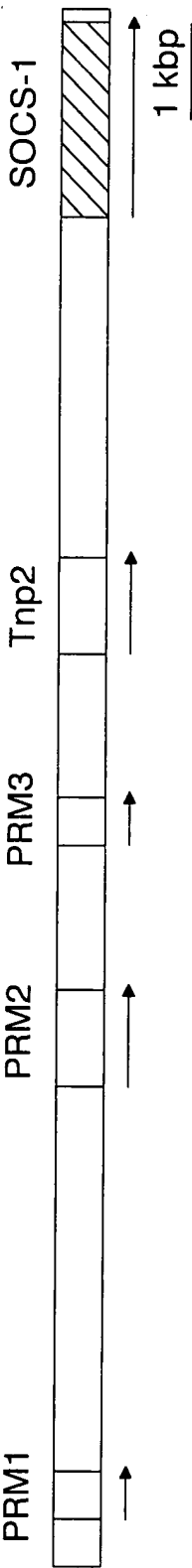


Figure 3A

-159 cgaggtcaagctccggcggtattctgctgccgctctcg
-120 ctccttggggtctgttggccggcctgtgccaccggacgccggtcactcctgtct
-60 ccccatcagcgagccccggacgtatggccacccctccagctgccccctcgagtagg

1 ATGGTAGCACGCAACCAGGTGCAGCCGACAAATGCGATCTCCCCGGCAGCAGACCCCGA
1 MetValAlaArgAsnGlnValAlaAlaAspAsnAlaIleSerProAlaAlaGluProArg

61 CGCGGTCAGAGCCCTCCTCGTCTCGTCTTCTGTCCTCGCCAGCGGCCCTCGTCC
21 ArgArgSerGluProSerSerSerSerSerProAlaAlaProValArgPro

121 CGGCCCTGCCCGGCTCCAGCCCCAGCCCCCTGGCGACACTCACTTCGACCTTCGCGC
41 ArgProCysProAlaValProAlaProAlaProGlyAspThrHisPheArgThrPheArg

181 TCCCACTCCGATTACCGGCGCATCACGCGGACACGCGCTCCTGGACGCCCTGCGGCTTC
61 SerHisSerAspTyrArgArgIleThrArgThrSerAlaLeuLeuAspAlaCysGlyPhe

241 TATTGGGACCCCTGAGCGTGCACGGGGCGCACGAGCGGCTCCTGGACGCCCTGCGGCTTC
81 TyrTrpGlyProLeuSerValHisGlyAlaHisGluArgLeuArgAlaGluProValGly

301 ACCTTCTTGGTGCAGACAGTCGTCAACGGAACCTGCTTCTTCGCGCTCAGCGTGAAGATG
101 ThrPheLeuValArgAspSerArgGlnArgAsnCysPhePheAlaLeuSerValLysMet

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Figure 3B(1)

A - - - - - A

361	GCTTCGGGCCCCACGAGCATCCGCGTGCACTTCAGGCCGGCCGCTTCCACTTGGACGGC
121	AlaSerGlyProThrSerIleArgValHisPheGlnAlaGlyArgPheHisLeuAspGly
421	AGCCGCGAGACCTTCGACTGCCTTTTCGAGCTGCTGGAGCACTACGTGGCGGCCGCGGC
141	SerArgGluThrPheAspCysLeuPheGluLeuGluHisTyrValAlaAlaProArg
491	CGCATGTTGGGGCCCCGCTGCGGCCAGCGCCGCGTGCGGCCGCTGCAGGAGCTGTGCGC
161	ArgMetLeuGlyAlaProLeuArgGlnArgArgValArgProLeuGlnGluLeuCysArg
541	CAGCGCATCGTGGCCCGCGTGGGTCGCGAGAACCTGG GCGCATCCCTCTTAACCCGGTA
191	GlnArgIleValAlaAlaValGlyArgGluAsnLeuAlaArgIleProLeuAsnProVal
601	CTCCGTGACTACCTGAGTTCCTTCCCTTCCAGATCtgaccggctgccgctgtgccgcag
201	LeuArgAspTyrLeuSerSerPheProPheGluIle*

B - - - - - B

Figure 3B(2)

Figure 3B(3)

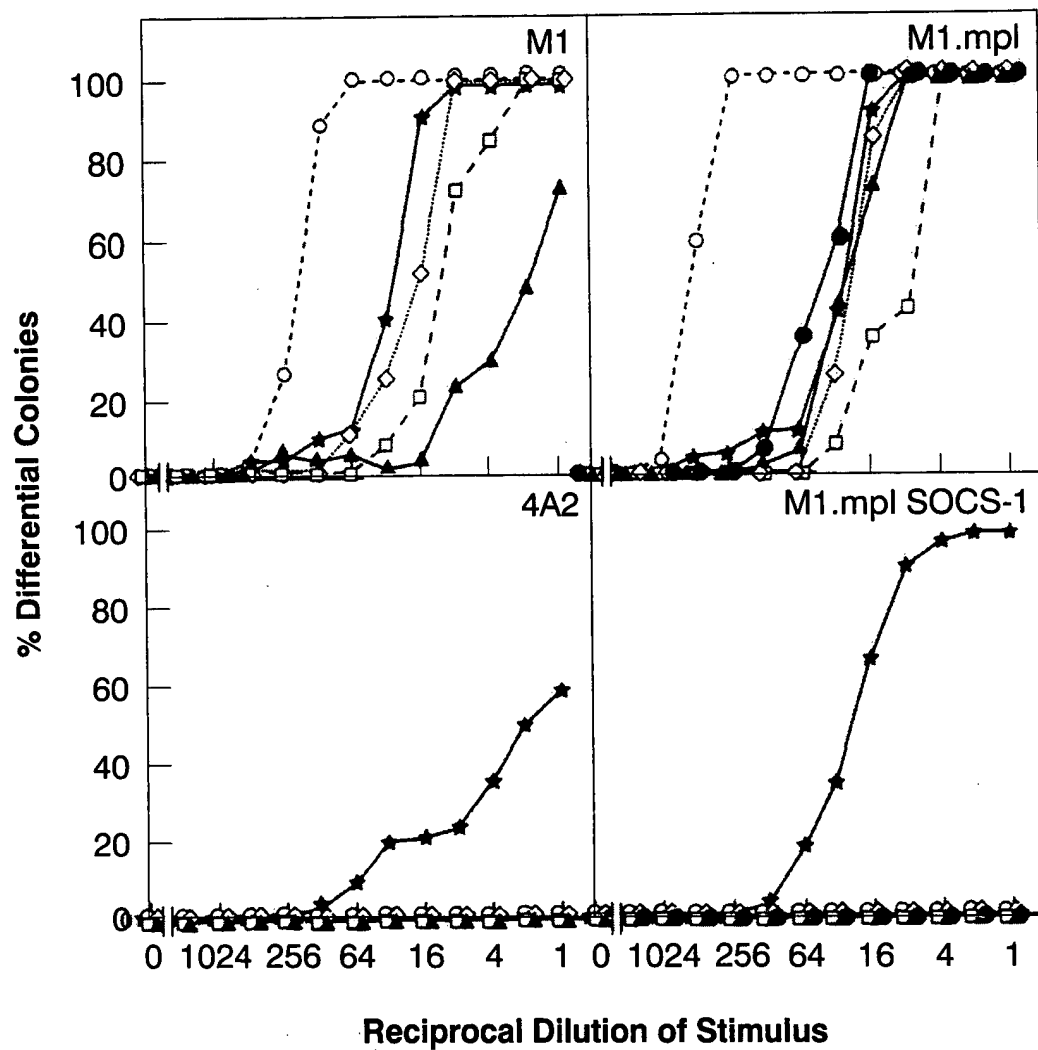


Figure 4

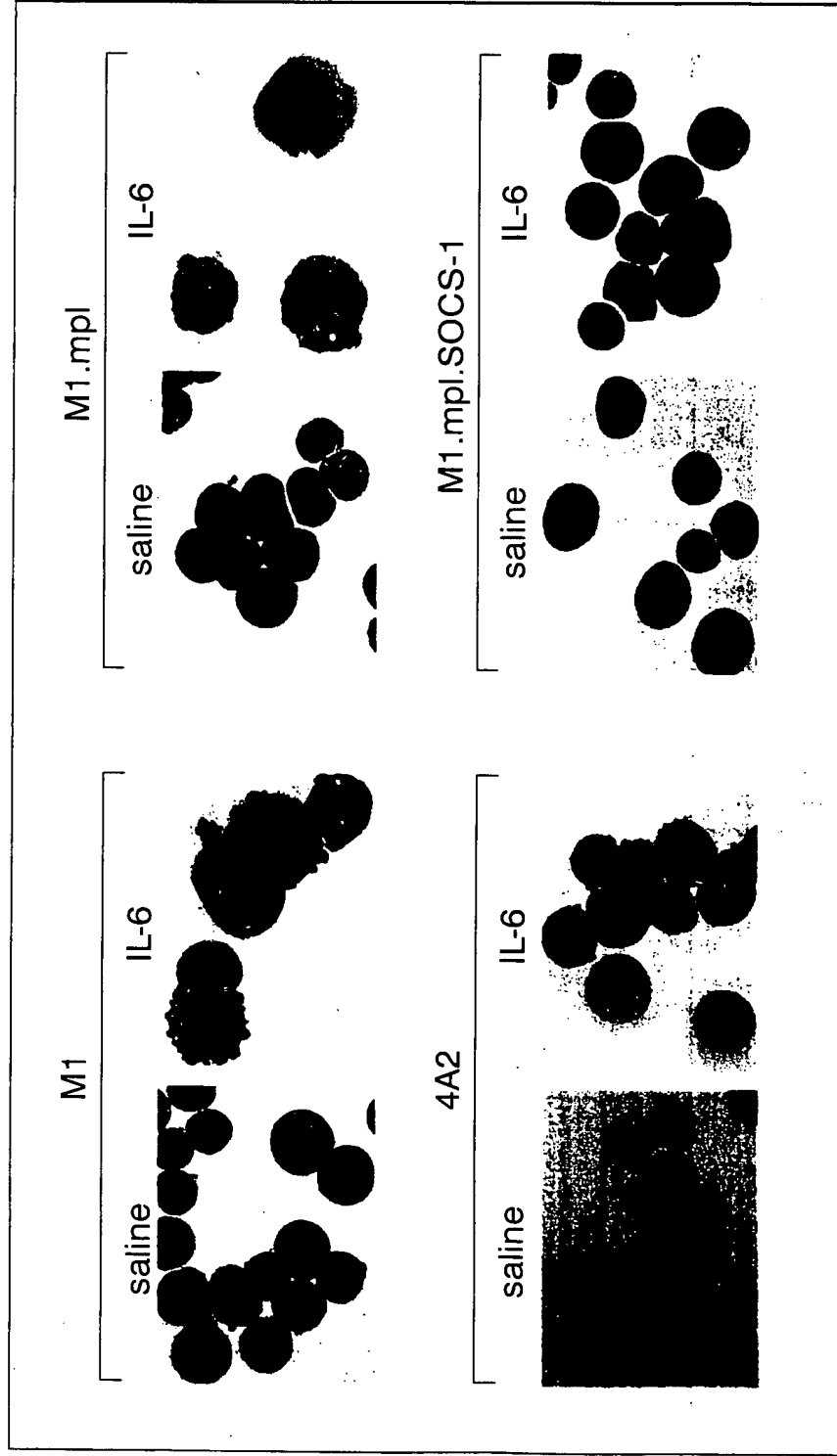


Figure 5

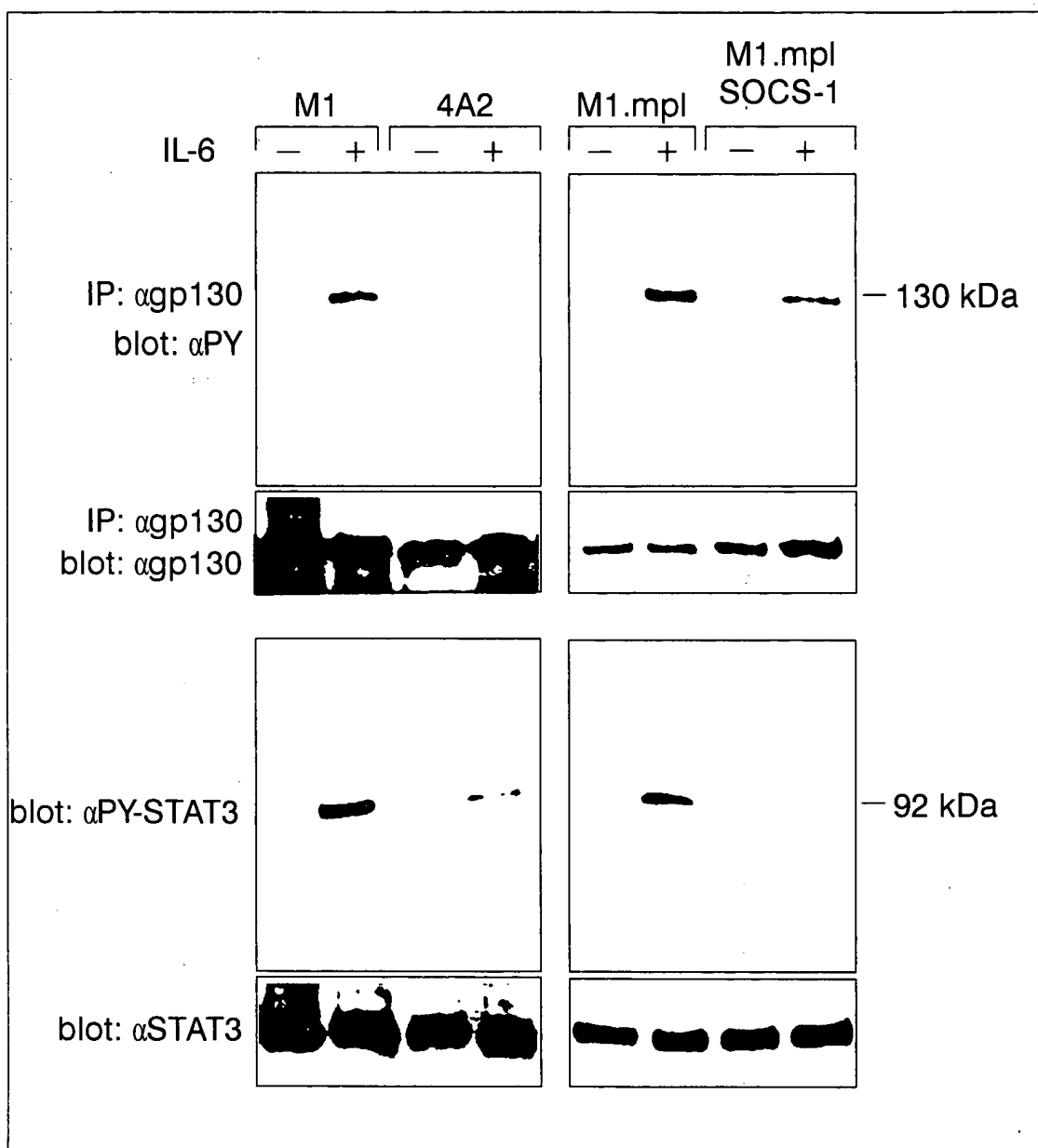


Figure 6

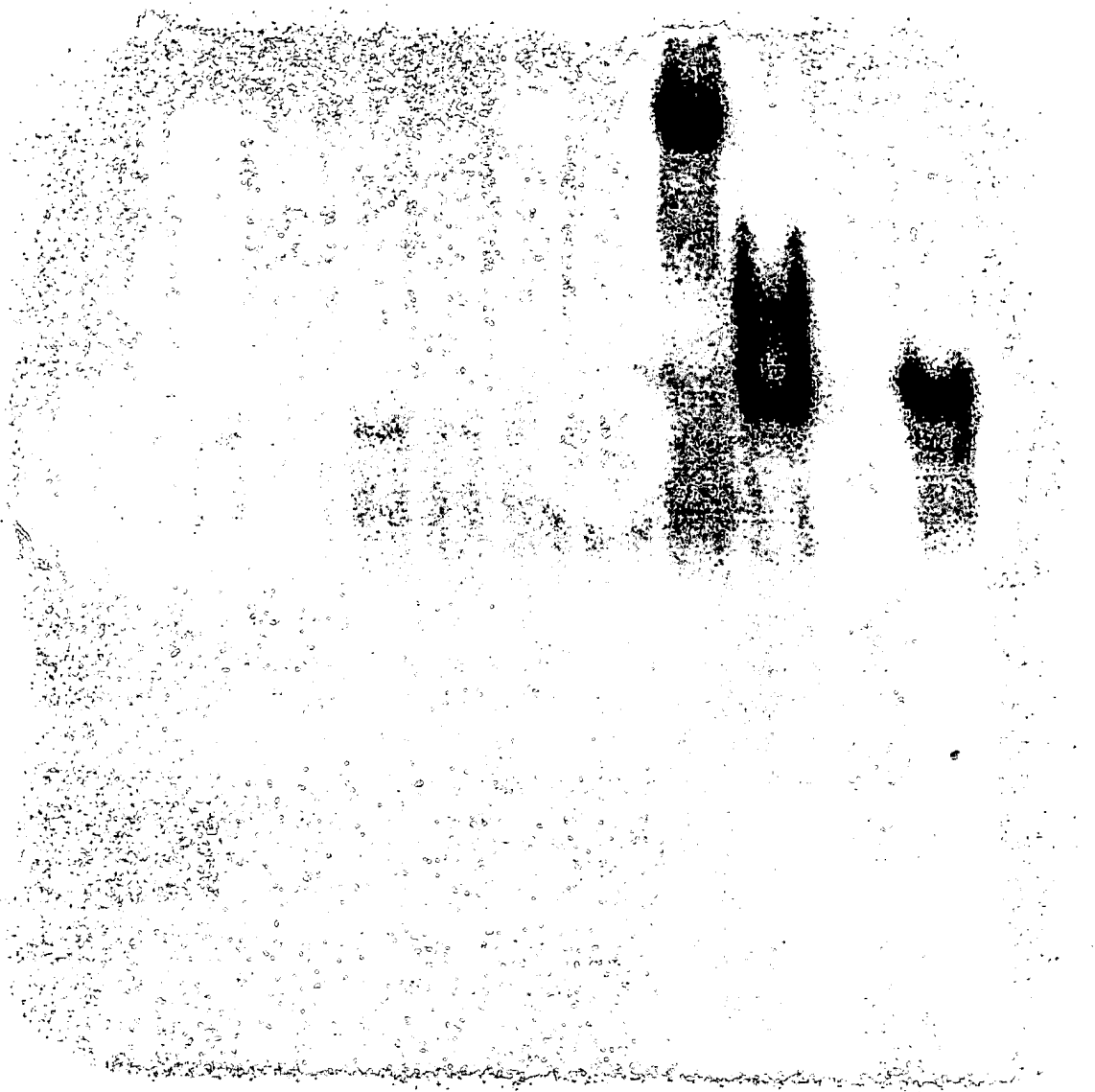


Figure 7A

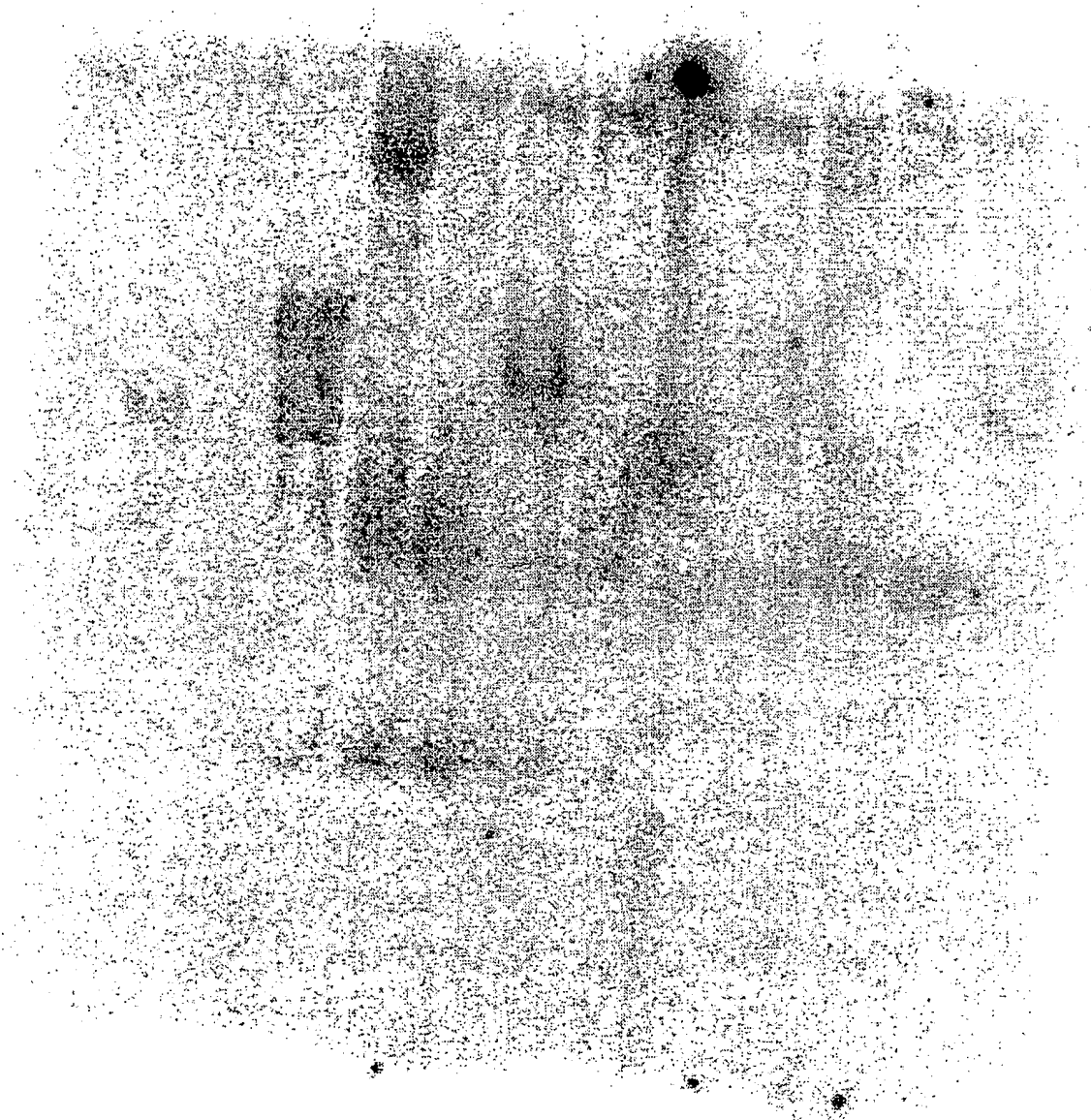


Figure 7B

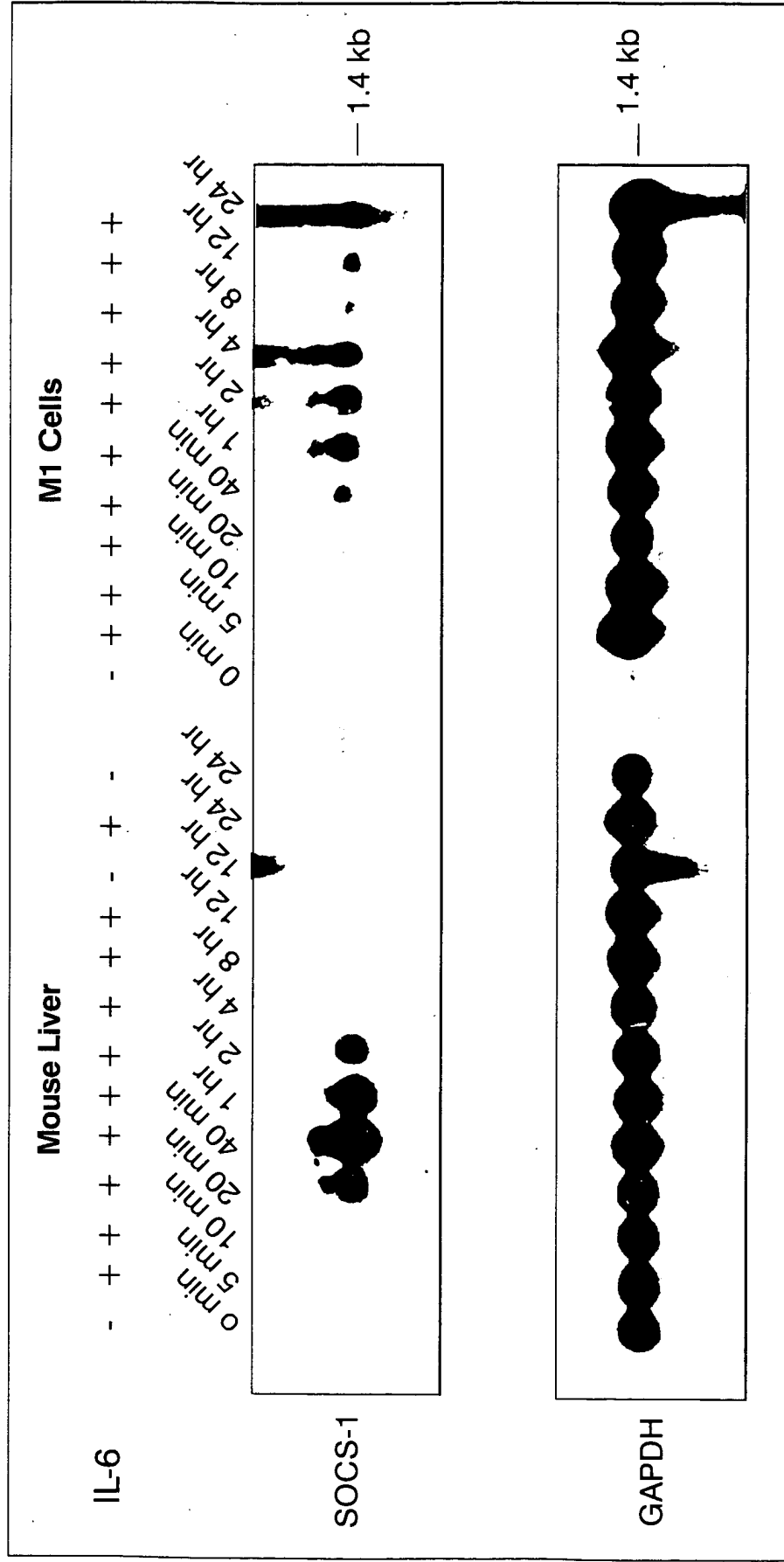


Figure 8

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hs SOCS. 1	(98)	VGTFELVRD	SRQRNC	FFALSVK	MASGPT	SIRVHF	QAGRF	HL D	...	GSRI	(141)
rr SOCS. 1	(99)	VGTFELVRD	SRQRNC	FFALSVK	MASGPT	SIRVHF	QAGRF	HL D	...	GNRI	(142)
mm SOCS. 1	(99)	VGTFELVRD	SRQRNC	FFALSVK	MASGPT	SIRVHF	QAGRF	HL D	...	GSRI	(142)
mm SOCS. 2	(67)	EGTFELVRD	SSHS DY	LTISVKT	SAGPTNL	RIEY	QDGK	FR L D	...	SII CVKSKL	(116)
mm SOCS. 3	(65)	AGTFELVRD	SSDQRH	FFLSVKT	QSGTKNL	RIEY	QCEGG	SFSLQ	...	SDPRSTQPV	(117)
mm Cl S	(101)	EGTFELVRD	STHPSYL	FTLSVKT	TRGPTNV	RIEY	ADSS	FR L D	...	NCLSRPRI	(150)

hs SOCS. 1	(142)	ESFDGLFEL	LEHYV	AAPRR	ML GAP	...	...	...	...	...	(165)
rr SOCS. 1	(143)	ETFDGLFEL	LEHYV	AAPRR	ML GAP	...	...	...	...	...	(166)
mm SOCS. 1	(143)	ETFDGLFEL	LEHYV	AAPRR	ML GAP	...	...	...	...	...	(166)
mm SOCS. 2	(117)	KOFDSVV	HLI DY	YVQ	MCCK	KRTGP	...	...	...	...	(140)
mm SOCS. 3	(115)	PRFDGLV	LKL VHH	YMP	PGT	PSFSL	PPT	EP	SS	EVPEQ	PPAQAALPGSTPKRA	(164)
mm Cl S	(151)	LAEPDVV	SLVQH	YV	ASCAAD	TRSD	\$	PD	PAPT	PALPMSK	QDAPSDSVLP	(200)

B - - - - - B

Figure 9(II)

B-----B

hs SOCS. 1 (166)
 rr SOCS. 1 (167)
 mm SOCS. 1 (167)
 mm SOCS. 2 (141)
 mm SOCS. 3 (165)
 mmCIS (201)

..... L R Q R R V R P L Q E L C R Q R I V A T V G R. E N L A R I P L N P (198)
 L R Q R R V R P L Q E L C R Q R I V A A V G R. E N L A R I P L N P (199)
 L R Q R R V R P L Q E L C R Q R I V A A V G R. E N L A R I P L N P (199)
 .. E A P R N G T V H L Y L T K P L Y T S A P T L Q H F C R L A I N K C T G T. . . I W G L P L P T (185)
 Y Y I Y S G G E K I P L V L S R P L S S N V A T L Q H L C R K T V N G H L D S Y E K V T Q L P G P. (213)
 ... V A T A V H L K L V Q P F V R R S S A R S L Q H L C R L V I N R L V A D. . . V D C L P L P R (244)

hs SOCS. 1 (199)
 rr SOCS. 1 (200)
 mm SOCS. 1 (200)
 mm SOCS. 2 (186)
 mm SOCS. 3 (214)
 mmCIS (245)

V L R D Y L S S F P F O I (211)
 V L R D Y L S S F P F O I (212)
 V L R D Y L S S F P F O I (212)
 R L K D Y L E E Y K F O V (198)
 R R E F L D Q Y D A P L (225)
 R M A D Y L R Q Y D F O L (257)

Figure 9(III)

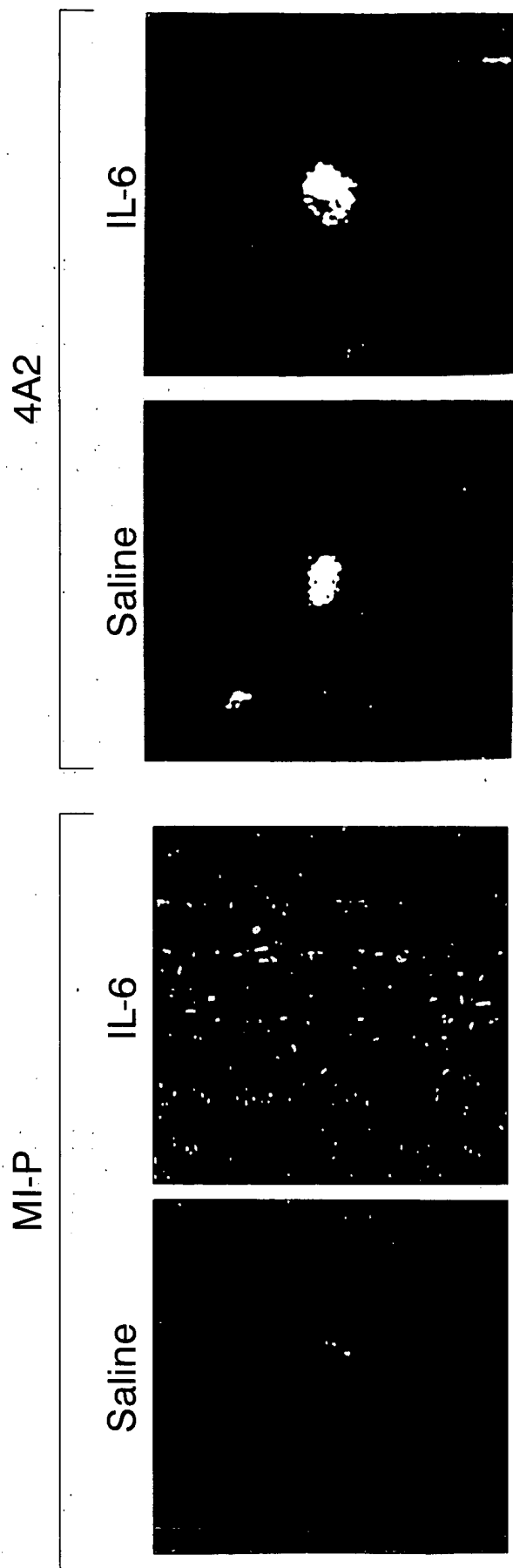


Figure 10

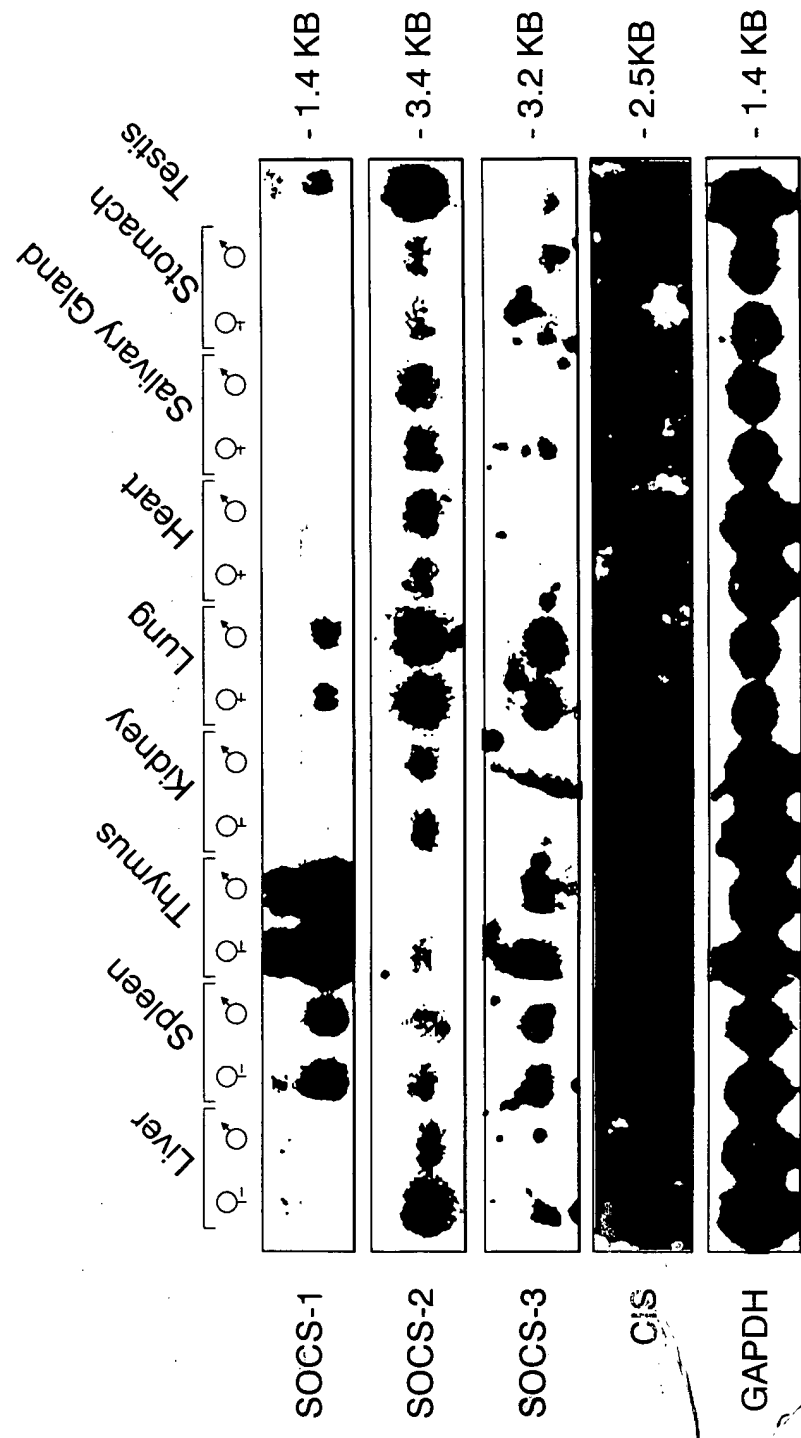
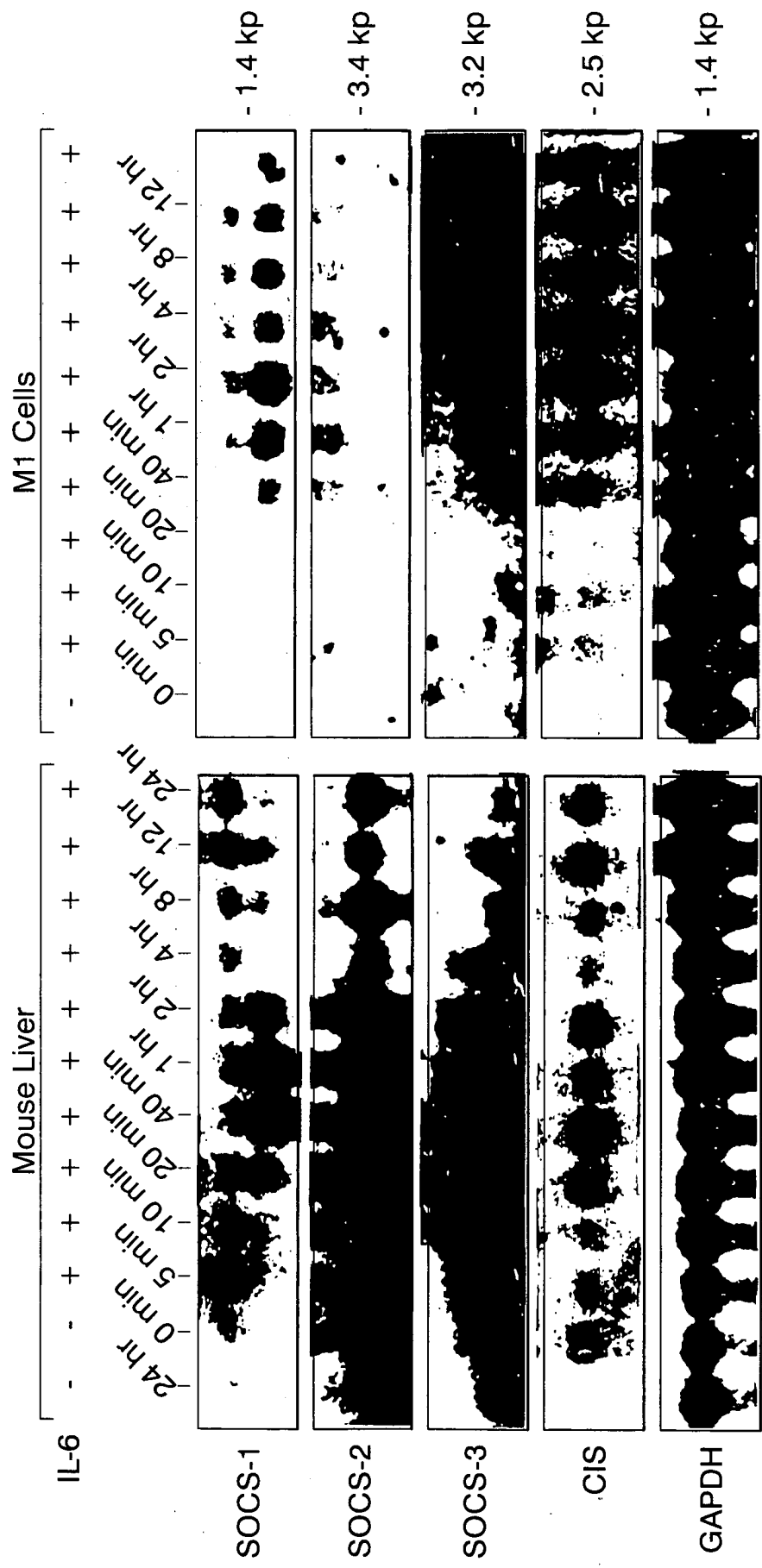


Figure 11A



Bone Marrow
Figure 11B



Figure 11C

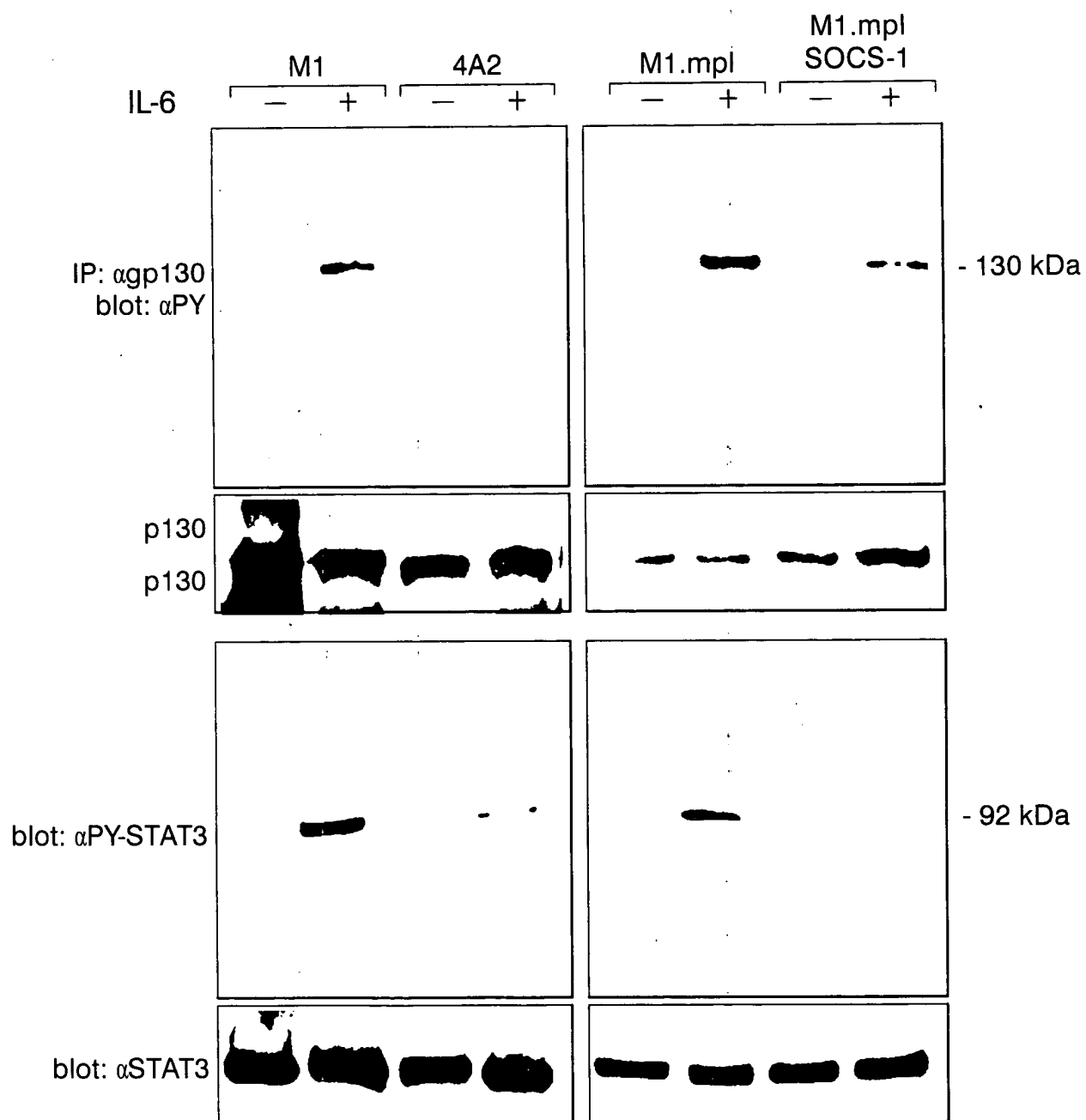


Figure 12A

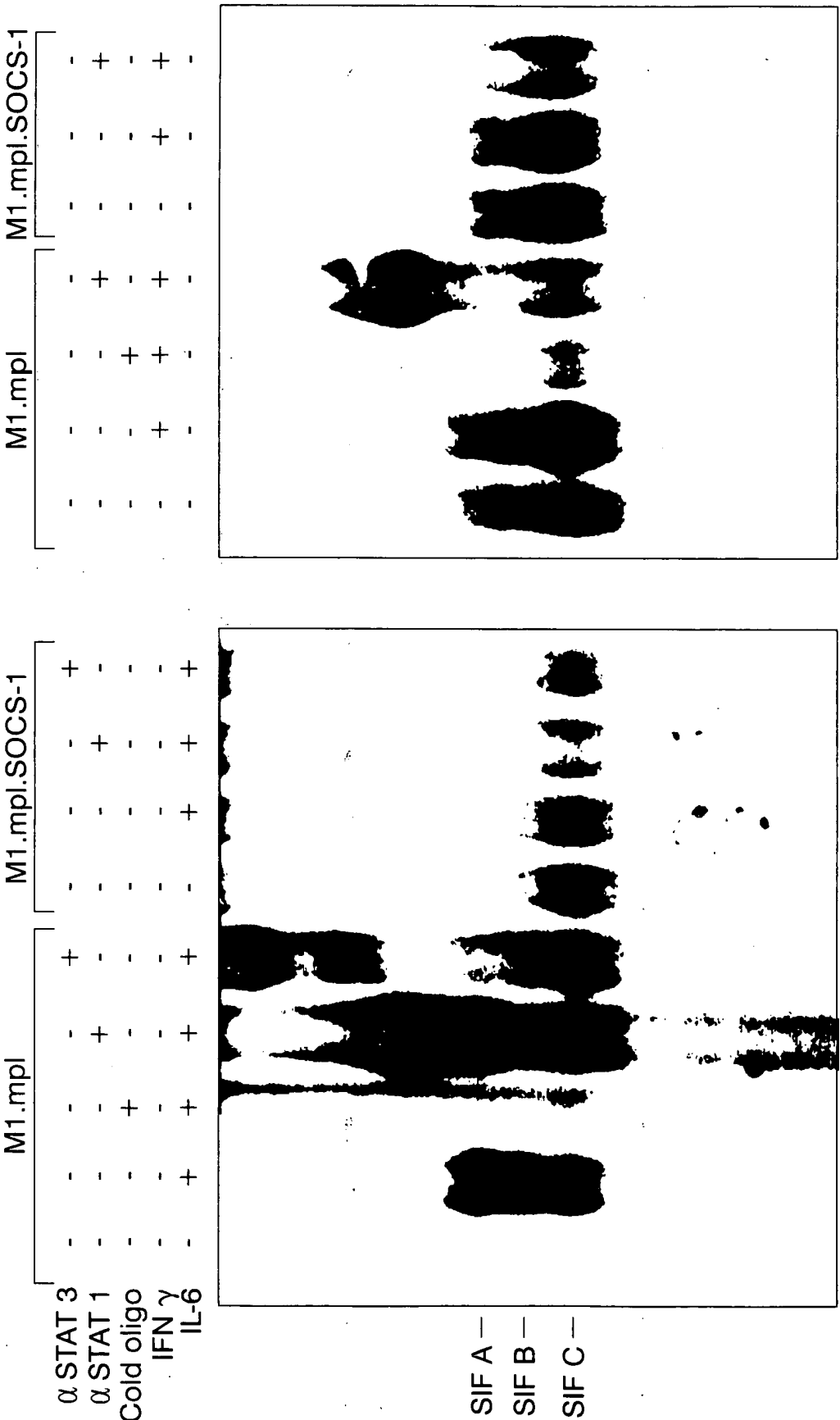


Figure 12B

Appln. No. 08/962,560
 Notice of Allowance Dated 8/10/04
 Replacement Sheet

mS	S	O	C	S	1	MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	3		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	2		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mC	I	S				MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	5		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	14		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	4		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	6		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	15		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	5		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	14		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	5		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	14		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	5		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	14		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	5		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP
mS	O	C	S	14		MA	TH	HN	QV	AA	DN	AI	SS	PA	AE	PR	RR	SE	PS	SS	SS	SS	SS	SS	PA	AP	VR	PP

FIG. 13 A (i)

Appln. No. 08/962,560
 Notice of Allowance Dated 8/10/04
 Replacement Sheet

mS0CS. 1	SH2	RPCPAVPAPA
mS0CS. 3	SH2	.....
mS0CS. 2	SH2	.....
mCIS	SH2	.....
mS0CS. 5	SH2	KEKSI SLGEAAPQDESSPLRENVA LQLGLSPSKTFSRRRNQNCA
mS0CS. 14	SH2	GSGRASLPRLSERRVMAVVMAGARTAPLELSSERSVQKVP RR
mS0CS. 4	WD	
mS0CS. 6	WD	
mS0CS. 15	WD	
mS0CS. 5	SH2	KHSCSTKTQSSLDTEKKFGTTRSGLQRRRRRYGVSSM QDMDS
mS0CS. 14	SH2	SR SADRKDG YVWSGKKLSWSYKKSESCSESAIGTVENVEIPLR
mS0CS. 5	SH2	KHLSELMLEKCPFPAGSDLLQKWHHIIHQHTAPVVS
mS0CS. 14	SH2	PKKNCSGRHSPLPSKRKIHTSELMLDDKCCPFP RRDLA FRWFF
mS0CS. 5	SH2	HTFEATADVNPT YK GPKLPPGMTEISGDGSAIPQXNCB
mS0CS. 14	SH2	CFSHTNGQPPCVITANSA SCTGGH TGSMMN LV TNNST EDSMD
mS0CS. 5	SH2	QYVHCLVPRDLLOITGRRP
mS0CS. 14	SH2	QYVHCLVPRDLLOITGRRP

FIG. 13 A (ii)

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SUMMARY

mmSUCS-1

| | | |
|--------|-----|------------------------------|
| COMSEN | K | |
| SUS | Y | |
| | CFR | |
| mmS | Φ | WD |
| mmS | AW | SGGYRI VKL |
| mmS | AW | SGGHC VVKL |
| | | |
| mmS | EH | VI |
| mmS | | DCGGDI VWSLAF |
| mmS | | D |
| mmS | | CGQI VWGVAF |
| | | |
| mmS | KI | WDVYTGKLL LLLNLVD |
| mmS | KI | WEVQTGL LLLNLS |
| | | |
| mmS | VWD | LKDDGNMVKVLR |
| mmS | IWD | LNKHGKQIQVLS |
| | | |
| mmS | LWN | MDKYTIMIRKLE |
| mmS | LWS | MRSYTLIRKLE |
| | | |
| mmS | VWD | PHNGD LLM EFGH LFP SPTPI FAG |
| mmS | MWD | PYTGARLRSLHHTQL EPTMD DSD |
| | | |
| mmS | FYR | IDEEDCPVQVAP |
| mmS | IWA | LELKAPVAFAP |
| | | |
| mmS | FWA | |
| mmS | FWT | |
| | | |
| mmS | GN | |
| mmS | AE | |
| | | |
| mmS | GWD | ISWPLGRNRL |
| mmS | GWD | IGRGKL |
| | | |
| mmS | MXD | |
| mmS | GYS | |

FIG. 13C (ii)

[illegible]

Appln. No. 08/962,560
 Notice of Allowance Dated 8/10/04
 Replacement Sheet

| | | | | |
|----------|-------|-------------------------------|--------------------------------|-------|
| mS0CS-1 | SH2 | V A A P R R R | M L G A P L R Y T S | Q R R |
| mS0CS-3 | SH2 | Y S G G E K I P I | V L S R P L R Y T S | S S N |
| mS0CS-2 | SH2 | A P R N G T V H I | V L T K P L R T F | |
| mC I S | SH2 | V A T A V H L K I | V Q P F V R R T F | |
| mS0CS-5 | SH2 | S S C M F F E P I | L T I S L N F X X | |
| mS0CS-14 | SH2 | S S C M F F E P I | L T I S L N F X X | |
| hS0CS-9 | SH2 | G S A T Y L V R I | L K P V S R P R Q | |
| hS0CS-11 | SH2 | G L P P T P V Q I | L K P V S R P R Q | |
| mS0CS-4 | WD | | | |
| mS0CS-6 | WD | | | |
| mS0CS-13 | WD | W G H C E I R M R Y L | T A V E E | |
| mS0CS-15 | WD | W G Q C Q V R I R Y M G E R R | N G L | |
| mS0CS-7 | A N K | | | |

FIG. 13 E (ii)

[illegible]

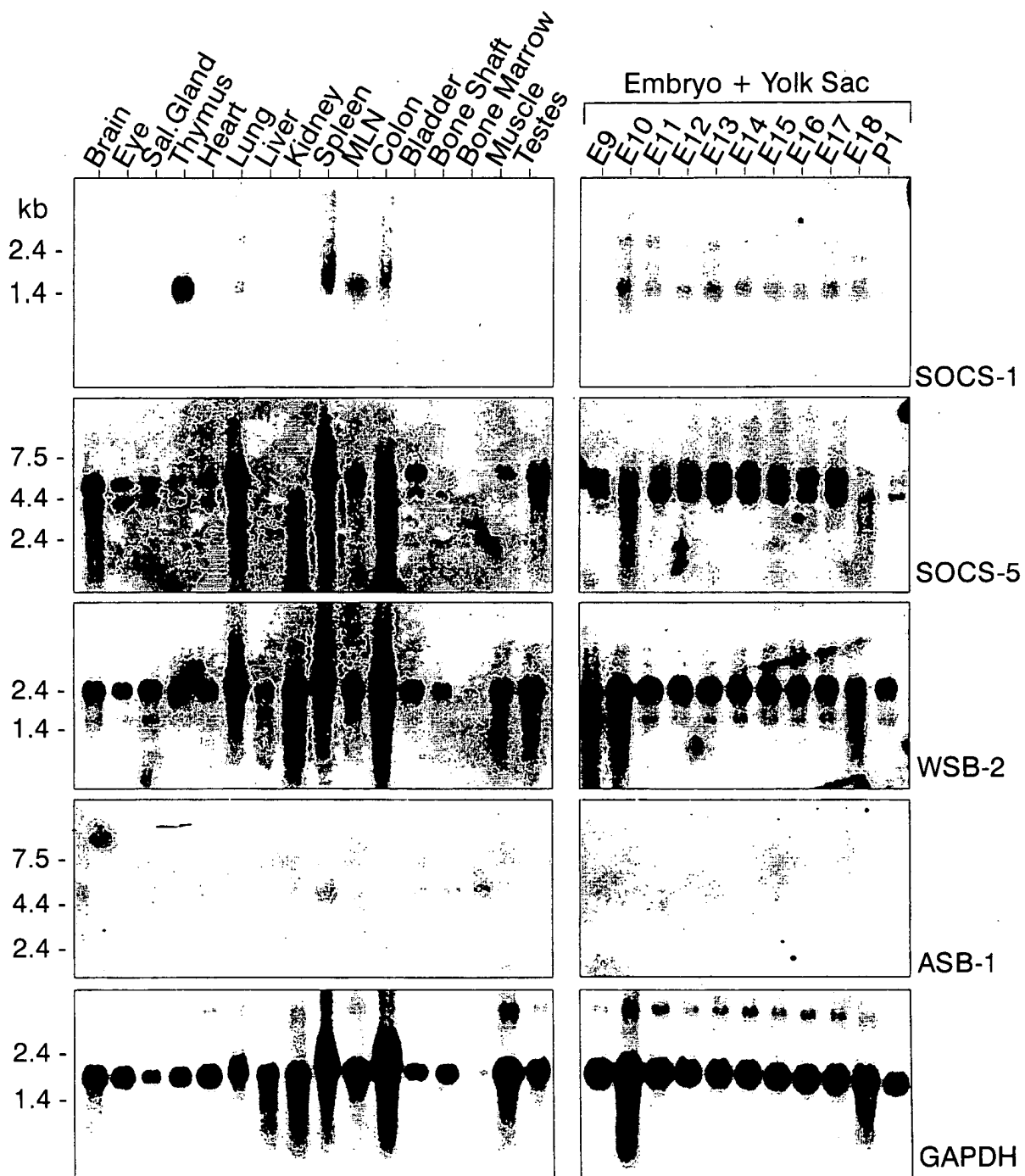


Figure 14B

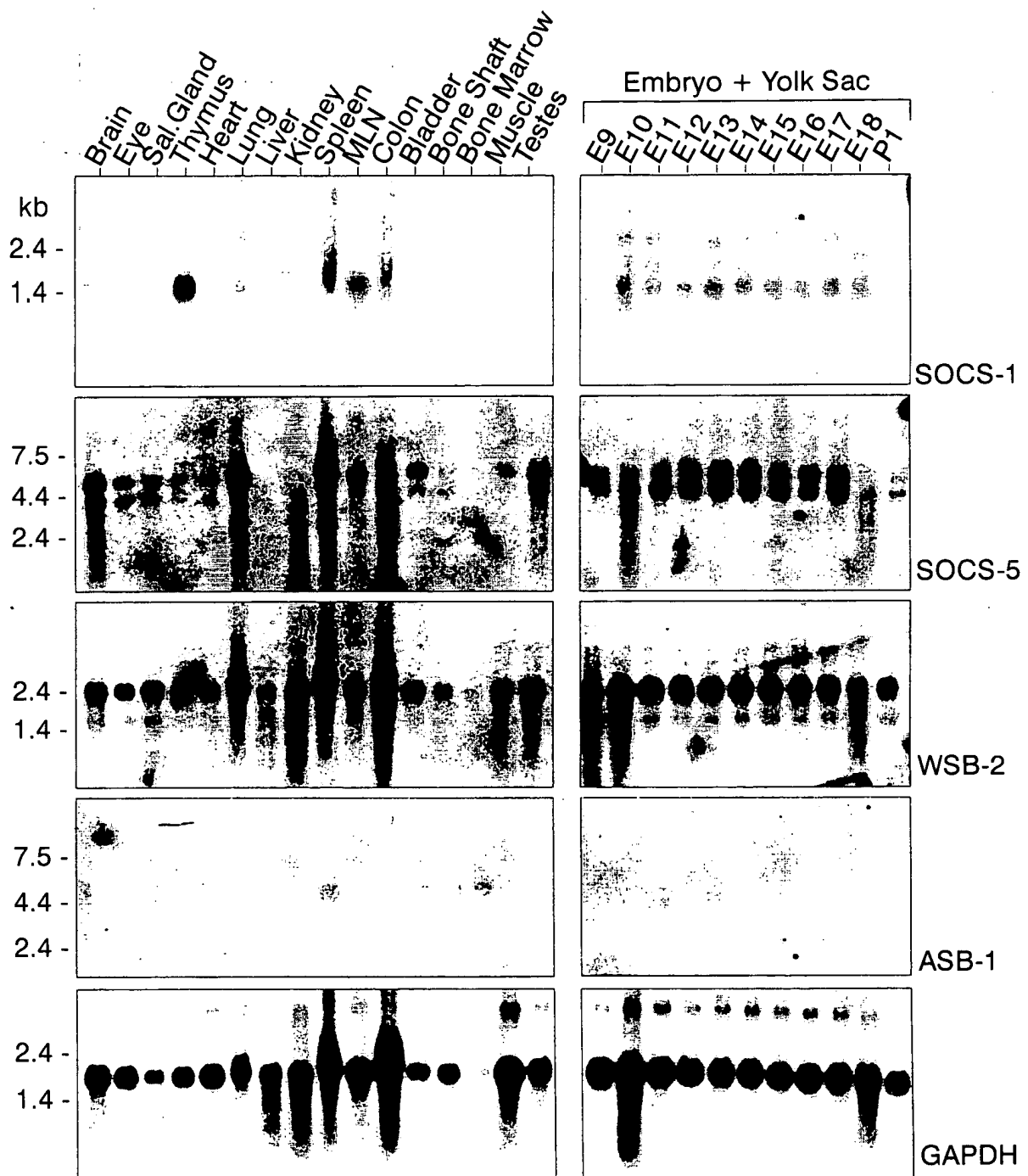


Figure 14B

Appln. No. 08/962,560
Notice of Allowance Dated 8/10/04
Replacement Sheet

cgaattccggcgggctgtgtgagtcctgtgagtggaaggcgcgccggctcttctgtctgagtgtagccgggtggtt
ccaggcattccggtgatctcctcgggcagtcgcgagaagccgcagcgccgcgcctctctgagtcctccacacc
cgggagagcctgagcccgctcaegccctcagcccgctgagtccttctgtgtgcggtccgaatcgagttcccg
gaatcagacggtgccccatagATGGCCAGCTTTCCCCCGAGGGTTAACGAGAAAAGATCGTGAGATCACGTACTATAGG
GGAACCTCTTGCTCCAGCAGCTCCTTTTGACAAAGAAATGTGTGTGAGAACTGGACGGTTTGCTTTTGCTCCTGATGGTT
CCTACTTTGCGTGTCACAAAGGATATCGCATAGTGAAGCTTGTCCTGGTCCCAGTGCCGTAAGAACTTTCTTTTGCA
GGTTCCAAAAATGTTACCAATTCAGCTGTCTAAAATTGGCAAGACAAAACAGTAATGGTGGTCAGAAAAACAAGCCTCC
TGAGCACGTTATAGACTGTGGAGACATAGTCTGGAGTCTTGCTTTTGGGTCTTCAGTTCAGAAAAACAGAGTCGTTGCG
TTAATATAGAAATGGCATCGGTTCCGATTTGGACAGGATCAGCTACTCCTTGCCACAGGATTAAACAATGGTCGCATCAAA
ATCTGGGATGTATATACAGGAAAACCTCCTTAATTTGGTAGACCACATTGAAATGGTTAGAGATTTAACTTTTGCTCC
AGATGGGAGCTTACTCCTTGATCAGCTTCAAGAGACAAAACCTAAGAGTGTGGACCTGAAAGATGATGGAACATGG
TGAAAGTATTGCGGCACATCAGAAATGGGtGtACAGTTGTGCATTCTCTCCGACTGTTCTATGCTGTGTTCAGTgGGC
GCCAGTAAAGCAGTTTTCTTTGGAAATATGGATAAAATACACCATGATTAGGAAGcTGGAAGTCATCACCATGATGTTGT
AGCTGTGACTTTTCTCCTGATGGAGCATTGCTAgCTACTGCATCCTATGACACTCGTGTGTATGTCTGGGATCCACACA
ATGGAGACCTTCTGATGGAGTTTGGGCACCTGTTTCCCTCGCCCACTCCAATATTTGCTGGAGGAGCAAATGACCGATGG
GTGAGAGCTGTGCTTTTCAGTCATGATGGACTGCATGTTGCCAGCCTTGCTGATGATAAAATGGTGAGTTCTGGAGAAAT
CGATGAGGATTGTCCGGTACAAGTTGCACCTTTGAGCAATGGTCTTTTGCTGTGCCCTTTTCTACTGATGCGAGTGTTTAG
CTGCTGGACACATGATGGAAGTGTGTATTTTGGGCCACTCCAAGGCAAGTCCCCTAgCCTTCAACATATATGTCGCATG
TCAATCCGAAGAGTGATGTCCACCCCAAGAGTCCAAAACCTGCCCTGTTCTCTTCCAAAATATTGGCGTTTCTCTCTACCG
CGGTAGactgaagactgcctttccctggtaggcctgccagacagagcgccctttacaagacacacacctcaagctttacctc
gtgccgaatt

Figure 15

MASFPRVNEKEIVRSRTIGELLAPAAPFDKKCGGENWTVAFAPDGSYFAWSQGYRIVKLVPSQCRKNFLLHGSKNVTN
SSCLKLARQNSNGGQKNKPPEHVIDCGDIVWSLAFGSSVPEKQSRCVNI EWHRRFRFGQDQLLATGLNNGRIKIWDVYTG
KLLNLVDHIEMVRDLTFAPDGSLLLVSA SRDKTLRVWDLKDDGNMVKVLRHQNWVYSCAFSPDCSMLCSVGASKAVFL
WNMDKYTMIRKLEGGHHHDVVACDFSPDGALLATASYDTRVYVWDPHNGDLLMEFGHLFPSTPIFAGGANDRWVRAVSFS
HDGLHVASLADDKMVRFRIDEDCPVQVAPLSNGLCCAFSTDGSVLAAGTHDGSVYFWATPRQVPSLQHICRMSIRRVMS
TQEVQKLPVPSKILAFLSYRG*

Figure 16



h4.1

CTGTCTTCCTCCGCAGCGGAGGCTGGGTACAGGGTCTATTGTCTGTGGTTGACTCCGTA
CTTTGGTCTGAGGCCTTCGGGAGCTTTCCCGAGGCAGTTAGCAGAAGCCGCAGCGACCGC
CCCCGCCCCGTCTCCTCTGTCCCTGGGCCCCGGGAGACAAACTTGGCGTCACGCCCTCAGCG
GTCGCCACTCTCTTCTCTGTGTTGGGTCCGCATCGTATTCCCGGAATCAGACGGTGCCC
CATAGATGGCCAGCTTTCCCCCGAGGGTCAACGAGAAAGAGATCGTGAGATCACGTACTA
TAGGTGAACTTTTAGCTCCTGCAGCTCCTTTTGACAAGAAATGTGGTTCGTGAAAATTGGA
CTGTTGCTTTTGCTCCAGATGGTTTCACTTTGCTTGGTCACAAGGACATCGCACAGTAA
AGCTTGTTCCGTGGTCCCAGTGCCTTCAGAACTTTCTCTTGCATGGCACCAAGAATGTTA
CCAATTCAAGCAGTTTAAGATTGCCAAGACAAAATAGTGATGGTGGTCAGAAAAATAAGC
CTCGTGACATATTATAGACTGTGGAGATATAGTCTGGAGTCTTGCTTTTGGGTCATCAGT
TCCAGAAAAACAGAGTCGCTGTGTAAATATAGAATGGCATCGCTTCAGATTGGACAAGA
TCAGCTACTTCTTGCTACAGGGTTGAACAATGGGCGTATCAAAATATGGGATGTATATCA
GGAAACTCCTCCTTAAGTTGGTAGATCATACTGAAGTGGTCAGAGATTTAACTTTTGCTC
CAG

h4.2

CTCTGTATGTCTGAATGAAGCTATAACATTTGCCTTTTTTATTGCAGGTTTCCTTTGGAA
TATGGATAAATACACCATGATACGGAACTAGAAGGACATCACCATGATGTGGTAGCTTG
TGACTTTTCTCCTGATGGAGCATTACTGGCTACTGCATCTTATGATACTCGAGTATATAT
CTGGGATCCACATAATGGAGACATTCTGATGGAATTTGGGCACCTGTTTCCCCCACCTAC
TCCAATATTTGCTGGAGGAGCAAATGACCGGTGGGTACGATCTGTATCTTTTAGCCATGA
TGGACTGCATGTTGCAAGCCTTGCTGATGATAAAATGGTGAGGTTCTGGAGAATTGATGA
GGATTATCCAGTGCAAGTTGCACCTTTGAGCAATGGTCTTTGCTGTGCCCTTCTCTACTGA
TGGCAGTGTTTTAGCTGCTGGGACACATGACGGAAGTGTGTATTTTTGGGCCACTCCACG
GCAGGTCCCTAGCCTGCAACATTTATGTCGCATGTCAATCCGAAGAGTGATGCCCCACCA
AGAAGTTCAGGAGCTGCCGATTCTTCCAAGCTTTTGGAGTTTCTCTCGTATCGTATTTA
GAAGATTCTGCCTTCCCTAGTAGTAGGGACTGACAGAATACACTTAACACAAACCTCAAG
CTTTACTGACTTCAATTATCTGTTTTTAAAGACGTAGAAGATTTATTTAATTTGATATGT
TCTTGTACTGCATTTTGATCAGTTGAGCTTTTAAATATTATTTATAGACAATAGAAGTA
TTTCTGAACATATCAAATATAAATTTTTTTAAAGATCTAACTGTGAAAACATACATACCT
GTACATATTTAGATATAAGCTGCTATATGTTGAATGGACCTTTTGCTTTTCTGATTTTT
AGTTCTGACATGTATATATTGCTTCAGTAGAGCCACAATATGTATCTTTGCTGTAAAGTG
CAAGGAAATTTTAAATTCTGGGACACTGAGTTAGATGGTAAATACTGACTTACGAAAGTT
GAATTGGGTGAGGCGGGCAAATCACCTGAGGTCAGCAGTTTGAGACTAGCCTGGCAAACA
TGATGAAACCCTGTCTCTACTAAAAATACAAAAA

Figure 18

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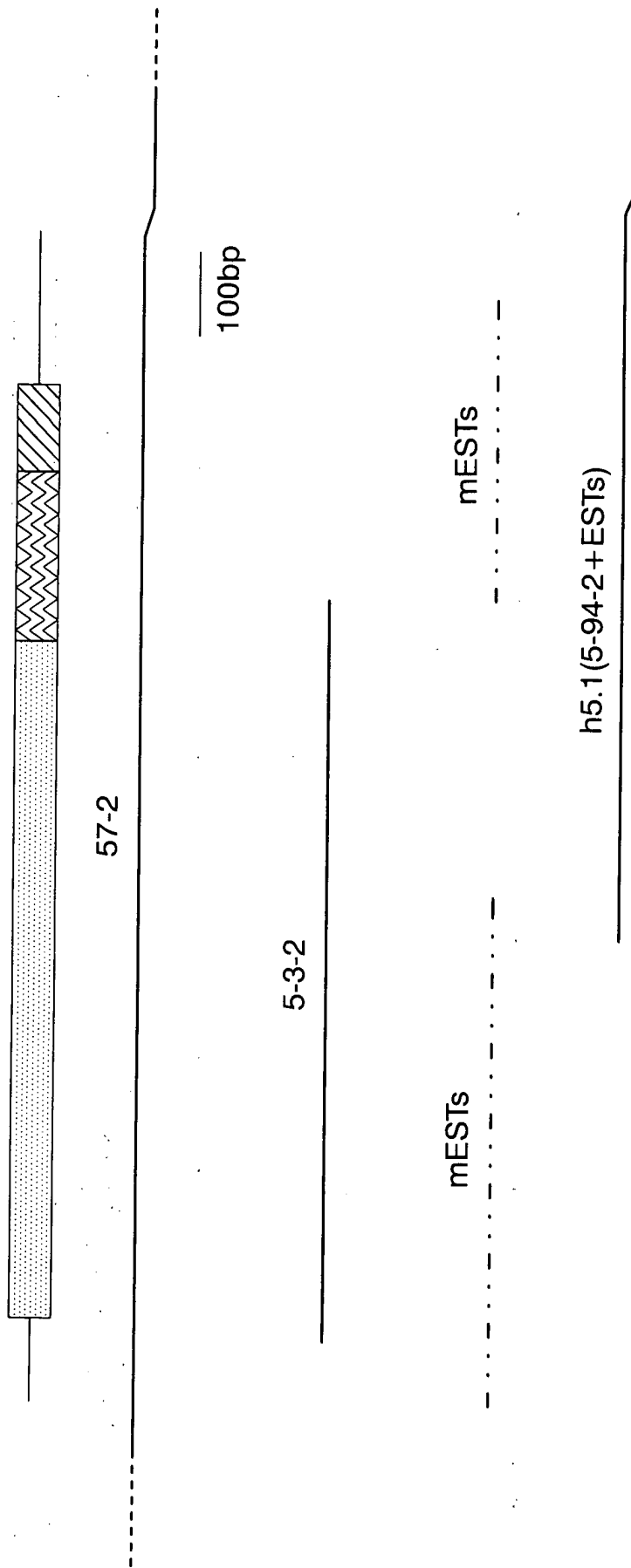


Figure 19

cggcacgagccgggctccgtccggaggaagcgaggctgcgccgcccggcccgagagcgaggacgg
 gamgcgcgggcggctcgcgctcgccctgtcgctgactgcgctgccccggcccatccttgccctggccgca
 ggtgccctggatgagggccgcccgcgctgtcccggccgctgagtgtcccccgcggtcgcccggcgctg
 ccctcaagcggccgctctccttgccccgggtccccgttttccccggcgagtcctcctccggtgggc
 gcctccgcacctcggcgcaggcggcacggccctcgggcccgggatggatccgcccgggaagaggaagaca
 agccggggcggttgagccccctgcgcacgggtgccgcgcgctagtgggagcttactcgcagtaggctct
 cgctcttctaatcaATGGATAAAGTGGGGAAAATGTGGAACAACCTTAAAATACAGATGCCAGAATCTC
 TTCAGCCACGAGGGAGGAAGCCGTAATGAGAACGTGGAGATGAACCCCAACAGATGTCCGTCTGTCAA
 AGAGAAAAGCATCAGTCTGGGAGAGGCAGCTCCCCAGCAAGAGAGCAGTCCCTTAAGAGAAAATGTT
 GCCTTACAGCTGGGACTGAGCCCTTCCAAGACCTTTTCCAGGCGGAACCAAACTGTGCCGCAGAGAT
 CCCTCAAGTGGTTGAAATCAGCATCGAGAAAGACAGTGACTCGGGTGCCACCCCAGGAACGAGGCTTG
 CACGGAGAGACTCCTACTCGCGGCACGCCCCGTGGGGAGGAAAGAAGAAACATTCTGTTCACAAAG
 ACCCAGAGTTTCATTGGATACCGAGAAAAAGTTTGGTAGAACTCGAAGCGGCCTTCAGAGGCGAGAGCG
 GCGCTATGGAGTCAGTCCATGCAGGACATGGACAGCGTTTCTAGCCGCGCGGTGGGAGCCGCTCCC
 TGAGGCAGAGGCTCCAGGACACGGTGGGTTTGTGTTTTCCCATGAGAACTTACAGCAAGCAGTCAAAG
 CCACTCTTTTCCAATAAAAAGAAAAATACATCTTTCTGAATTAATGCTGGAGAAATGCCCTTTTCTGC
 TGGCTCGGATTTAGCACAAAAGTGGCATTTGATTAAACAGCATAACGCCCCCTGTGAGCCCACACTCAA
 CATTTTTTGATACATTTGATCCATCACTGGTGTCTACAGAAGATGAAGAAGATAGGCTTCGCGAGAGA
 AGACGGCTTAGTATCGAAGAAGGGGTGGATCCCCCTCCCAACGCACAAATACACACCTTTGAAGCTAC
 TGCACAGGTCAACCCATTGTATAAGCTGGGACCAAAGTTAGCTCCTGGGATGACAGAGATAAGTGGAG
 ATGGTTCTGCAATTCCACAAGCSAATTGTGACTCAGAAGAGGATTCAACCACCCTATGTCTGCAGTCA
 CGGAGGCAGAAGCAGCGCCAGGTGTCCGGGGACAGCCACGCGCACGTTAGCAGACAGGGAGCTTGAA
 AGTTCATACGCAGATCGATTACATACACTGCCTCGTGCCAGATTTGCTTCAGATCACAGGGAATCCCT
 GTTACTGGGGCGTGATGGACCGATACGAGGCCGAAGCCCTTCTAGAAGGGAAACCGGAAGGCACGTTT
 TTGCTCAGGGACTCTGCACAGGAGGACTACCTCTTCTCTGTGAGCTTCCGCCGCTACAACAGGTCTCT
 GCACGCCCGGATCGAGCAGTGGAACCACAACCTTCAGCTTCGATGCCCATGACCCCTGCGTGTTCCT
 CCTCCACWGTACGGGGCTTCTCGAACACTATAAAGACCCCAGCTCTTGATGTTTTTTGAACCGTTG
 CTAACGATATCACTGAATAGAACTTCCCTTTTCAGCCTGCAGTATATCTGCCGCGCAGTGATCTGCAG
 ATGCACTACGTATGATGGGATTGACGGGCTCCCGCTACCGTCGATGTTACAGGATTTTTTAAAAGAGT
 ATCATTATAAAACAAAAAGTTAGGGTTCGCTGGTTAGAACGAGARCCAGTCAAAGCAAAGtaactcctg
 tccccaaagggcactaactaagtctgctcctcccgtgcatcmgaactgcacccataggraggcagtc
 gctgctaggatttcccacccagaatgggagcttagtcattagcctctgccctatggggctccgctgttc
 ctcagacaaaggtgcctagggacagcaagatggcttgcaggtgttcggtgggctgtgacaactgaggg
 aggcaactctggggcatttgctatgaagaattctatttcttaccgaagaacaaattattaatttga
 tgggtatttcaatagtgtgactaatgtttgaaattatTTTTTctaagaatttttctataaccttcaga
 aaaagtagtgatgtttgtagttactataaatcaagctttgaaagttcaaaacaaacaagttaataaa
 agactaccttcccttttagagaaaacaaatgcaagtttcccagccacaggcattgtgcactgttaatg
 ttagcttggttatcagctcctttctcctcc

Figure 20A

Appln. No. 08/962,560
Notice of Allowance Dated 8/10/04
Replacement Sheet

MDKVGMWNNLKYRCQNLFSHEGGSRNENVEMNPNRCPVKEKISLGEAAPQESSPLRENVALQLGLSPSKTFSTRNQ
NCAAEIPQVVEISIEKDSDSGATPGTRLARRDSYSRHAPWGKKKHCSTKTQSSLDTEKKFGRTRSGLQRRRERYGVSS
MQDMDSVSSRAVGSRLRQLQDTVGLCFPMRTYSKQSKPLFSNKRKIHLSSELMLEKCPFPAGSDLAQKWHLIKQHTAPV
SPHSTFFDTFDPSLVSTEDRRLRERRRLSIEEGVDPNPNAQIHTFEATAQVNPLYKLGPKLAPGMEISGDGSAIPQX
NCDSEEDSTTLCLQSRQKWRWVSGD SHAHVSROGAWKVHTQIDYIHCLVPDLLQITGNPCYWGVMMDRYEAEALLEGKPE
GTFLLRDSAQEDYLFVSFRRYNRSLHARIEQWNHNFSDAHDPCVFHSSXVTGLLEHYKDPSSCMFFEP LLTISLNRTF
PFSLQYICRAVICRCTTYDGIDGLPLPSMLQDFLKEYHYKQKVRVRWLERXPVKAK*

Figure 20B

GATTAAACAGCATAACAGCTCCTGTGAGCCACATTCAACATTTTTTGATACTTTGATCCATCTTTGG
TTTCTACAGAAGATGAAGAAGATAGGCTTAGAGAGAGAAGGCGGCTTAGTATTGAAGAAGGGGTTGA
TCCCCCTCCCAATGCACAAATACATACATTTGAAGCTACTGCACAGGTTAATCCATTATTAACTGG
GACCAAAATTAGCTCCTGGAATGACTGAAATAAGTGGGGACAGTTCTGCAATTCCACAAGCTAATTG
TGAATCGGAAGAGGATACAACCACCTGTGTTGCAGTCACGGAGGCAGAAGCAGCGTCAGATATCTG
GAGACAGCCATACCCATGTTAGCAGACAGGGAGCTTGGAAAGTCCACACACAGATTGATTACATACA
CTGCTTCGTGCCTGATTTGCTTCAAATTACAGGGAATCCCTGTTACTGGGGAGTGATGGACCGTTAT
GAAGCAGAAGCCCTTCTCGAAGGGAAACCTGAAGGCACGTTTTTGTCTCAGGGACTCTGCGCAAGAGG
ACTACTTCTTCTGTGAGCTTCCGCCGATACAACAGATCCCTGCATGCCCCGAATTGAGCAGTGGA
TCACAACCTTTAGTTTCGACGCCCATGACCCGTGTGTATTTCACTCCTCCACTGTAACGGGACTTTTA
GAACATTATAAAGATCCCAGTTCGTGCATGTTTTTTGAACCATTGCTTACTATATCACTAAATAGGA
CTTTCCCTTTTAGCCTGCAGTATATCTGTGCGCGGTAATCTGCAGGTGCACTACGTATGATGGAAT
TGATGGGCTCCCTCTACCCTCAATGTTACAGGATTTTTTAAAAGAGTATCATTATAAACAAAAAGTT
AGAGTTCGCTGGTTGGAACGAGAACCAGTCAAGGCAAAGTAAACTCTCCGGTCCCCAAAGGGTGTTA
ACTAGGTCCGCTTTCATGTGCATCAGACAGTACACCTATAGCAAGCACACGTAGCAGTGTTAGGCTT
TTTCATACAGTATGTAAGCTTAGTGTTAGTATCTGTCAGATGCTACCTGCTGTTACTTATTACAGATA
AACATGGTGCCTATTGGAACAATAGCGGATAGAGCTACAGGTGTTTCAGTAAGACTACAAAAACATTT
TGCCTATTTTCGCTAACAGTTTGGTTTTTAATGGCTGTGGTATTTGAGTGAGGCAACTCTGGGGCATT
TGTTATGAAGAAATG

Figure 21

socs6

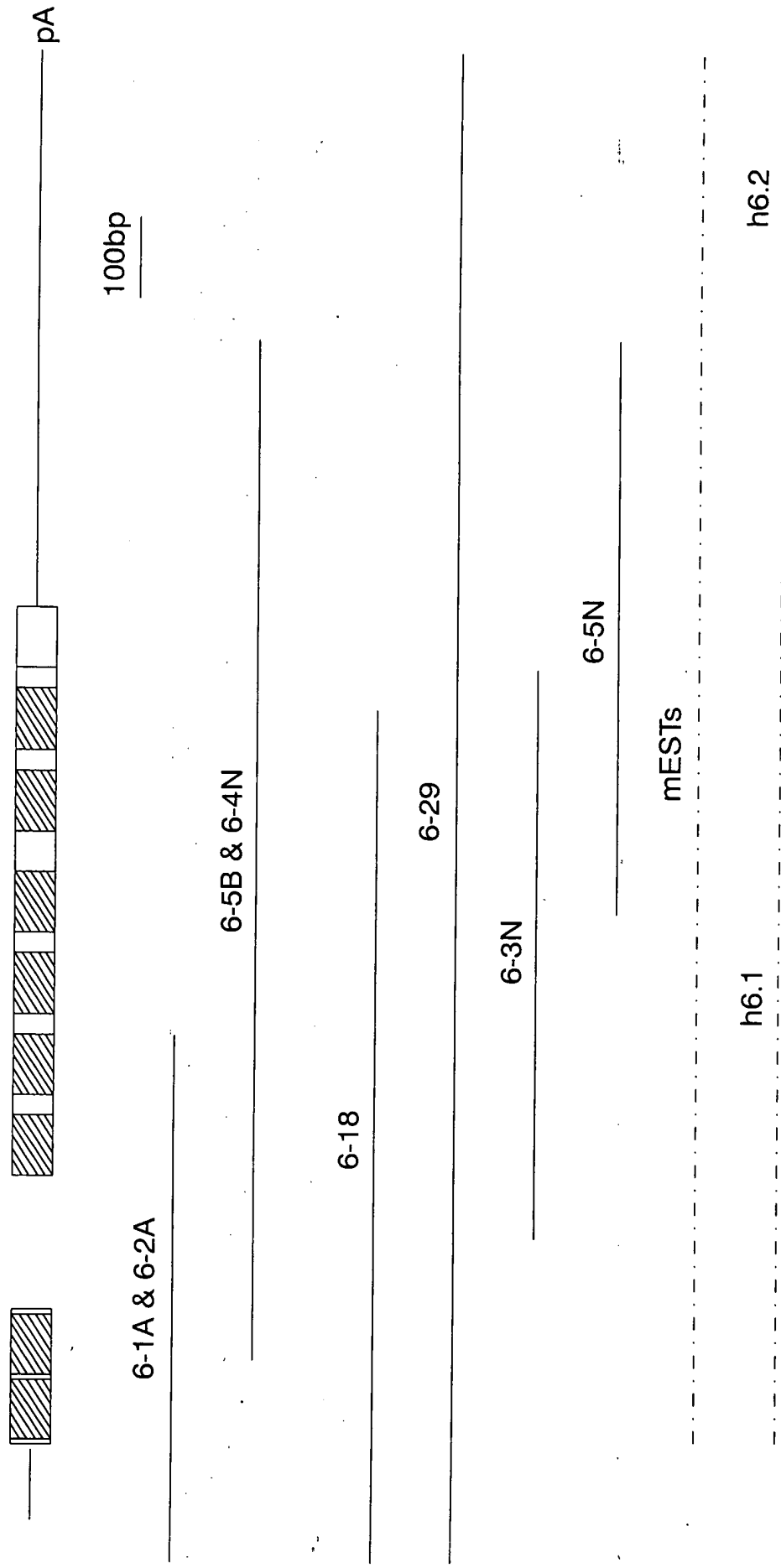


Figure 22

gaaaaaaaaa

Figure 23A

Appln. No. 08/962,560
Notice of Allowance Dated 8/10/04
Replacement Sheet

MEAGEEPLLLAELKPGRPHQFDWKSSCETWSVAFSPDGSWFWSQGHCVVVKLVPWPLEEQFIPKGFEAKSRSSKNDPKGRG
SLKEKTLDCGQIVWGLAFSPWPPSRKLLWARHHPQAPDVSCILATGLNDGQIKIWEVQTGLLLNLSGHQDVVRDLST
PSGSLILVSASRDKTLRIWDLNKHGKQIQVLSGHLQWVYCCSISPDSCMLCSAAGEKSVFLWSMRSYTLIRKLEGHQSSVV
SCDFSPDSALLVTASYDTSVIMWDPYTGARLRLSLHHTQLEPTMDDSDVHMSSLSRSVCFSPGELYLATVADDRLLRIWALEL
KAPVAFAPMTNGLCCTFFPHGGIIATGTRDGHVQFWTAPRVLSSLKHLCKALKRSFLTTYQVLAALPIPKMKFEFLTYRTF*

Figure 23B

h6.1

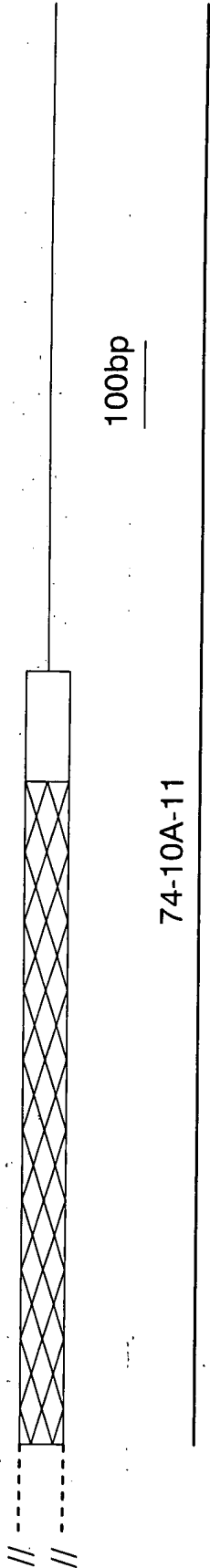
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TCTGGGAGGTGCAGACAGGGCTCCTGCTTTTGAATCTTTCCGGCCACCAAGATGTCTGTGAGAGATCTG
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CCTGAATAAACACGGTAAACAGATTCAAGTGTTATCGGGCCACCTGCAGTGGGTTTACTGCTGTTCCA
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CTCTGCCCTGCTTGTACGGCTTCTTACGATACCAATGTGATTATGTGGGACCCCTACACCGGCGAAA
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TAGGGTCCTGTCTCACTGAAGCACTTATGCCGGAAGCCCTTCGAAGTTTCTAACAACTTACCAAG
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CATCTTGTGCTTCTTTGTAGCAGGGTAAATCGTCTGTCAAAGGGAGTTGCTGGAATAATGGGCCAAA
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h6.2

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TTTTTAACAATGGTGTGCATGTGCAGGAAATGACAAATTTGTATGTCAGATTATACAAGGATGTATTC
TTAAACCGCATGACTATTCAGATGGCTACTGAGTTATCAGTGGCCATTTATTAGCATCATATTTATTT
GTATTTTCTCAACAGATGTTAAGGTACAACCTGTGTTTTTCTCGATTATCTAAAAACCATAGTACTTAA
ATTGAAAAAAAAAA

Figure 24

SOCS-7



mEST

mEST

h7.1

h7.2

Figure 25

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CAGGAACCTACTGCAAGAGGAGAGCTACCGGAGCCGCATCAATGAGAAGTCTGTCTGGTGCTGCGGCT
GGCTTCCCTGCACACCACTGAGGATCGCAGCCACTGCAGGCCATGGGAACTGTGTGGACTTCCTCATA
CGCAAAGGGGCGGAGGTGGACCTGGTGGATGTCAAGGGGCAGACTGCCCTGTATGTGGCTGTAGTGAA
CGGGCACTTGGAGAGCACTGAGATCCTTTTGGAAGCTGGTGCTGATCCCAACGGCAGCCGGCACCACC
GCAGCACTCCTGTGTACCATGCCTYTCGTGTGGGTAGGGACGACATCCTGAAGGCTCTTATCAGGTAT
GGGGCAGATGTTGATGTCAACCATCATCTGAATTCTGACACCCGGCCCCCTTTTTACGGCGGCTAAC
CTCCTTGGTGGTCTGTCTCTATACATCAGTGCTGCCTACCATAACCTTCAGTGCTTCAGGCTGCTCT
TGCAGGCTGGGGCAAATCCTGACTTCAATTGCAATGGCCCTGTCAACACCCAGGAGTTCTACAGGGGA
TCCCCTGGGTGTGT CATGGATGCTGTCTCGCCATGGCTGTGAAGCAGCCTTCGTGAGTCTGTTGGT
AGAGTTTGGAGCCAACCTGAACCTGGTGAAGTGGGAATCCCTGGGCCCAGAGGCAAGAGGCAGAAGAA
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aaggcttgatatcaaaacagaaagaggtttgttaagaaaagatataggagaaaaggaattccggttcc
gtgcacttgctagcctgctttccttgccctgggtttgtctgtctatgctgctgggtgcacatcccttct
ctttgctgccactgttctattttgggagttgtcttccgtctaagatggcttctggggttctatcttat
tgcacagaggtcccagaacagtgttcatagggcaccatctgctctgccagggttttctgatgtctta
ccctggggatcttcagacagtgggttacctttaggagaccacctggaactaaccattaagtgactgcc
cacattcagatcagggaccatcttaatagtactcactgccagtcctcacaagagaagatgacacgggt
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caacttcttgggtgttccactaaraccagratatcctagtttttggggttgactgttccctccccactt
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Figure 26A

Appln. No. 08/962,560
Notice of Allowance Dated 8/10/04
Replacement Sheet

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PVNTQEFYRGSPGCVMDA VLRHGCEAA FVSL LVEFGANLNLVKWESLGPEARGRRKMDPEALQVFKEARSI PRTLLSLCRV
AVRRALGKYRLHLVPSLPLPDPIKKFLLYE*

Figure 26B

h7.1

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CATGGGAGCTGTGTGGACTTCCTCATCCGGAAGGGGGCCGAGGTGGATCTGGTGGACGTAAAAGGACA
GACGGCCCTGTATGTGGCTGTGGTGAACGGGCACCTAGAGAGTACCCAGATCCTTCTCGAAGCTGGCG
CGGACCCCAAC

h7.2

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GGAGGCCTACTAATTTCTGTAGGGAAGACTCCCAGCACTTCTGGAACTGTGCTTCTCTTTATTTTTC
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Figure 27

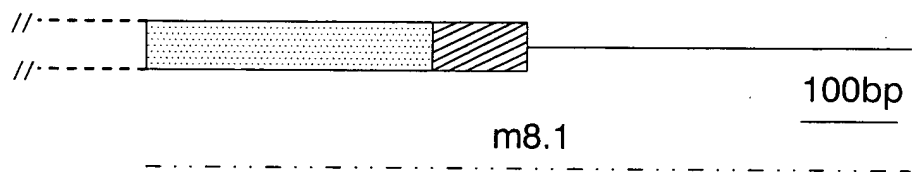


Figure 28

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TCCCTGCCACCGCGCATGCTCCGCTTCTGCAGCTGGACTTTGAGGATCTGCTCTACTAGgcttgc
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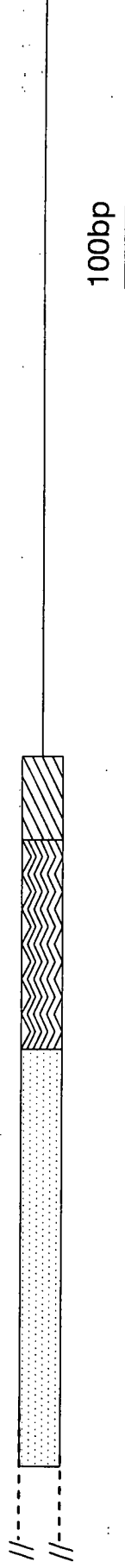
Figure 29A

Appln. No. 08/962,560
Notice of Allowance Dated 8/10/04
Replacement Sheet

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Figure 29B

SOCS-9



h9.1

m9.1

Figure 30

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Figure 31

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Figure 32

SOCS-10

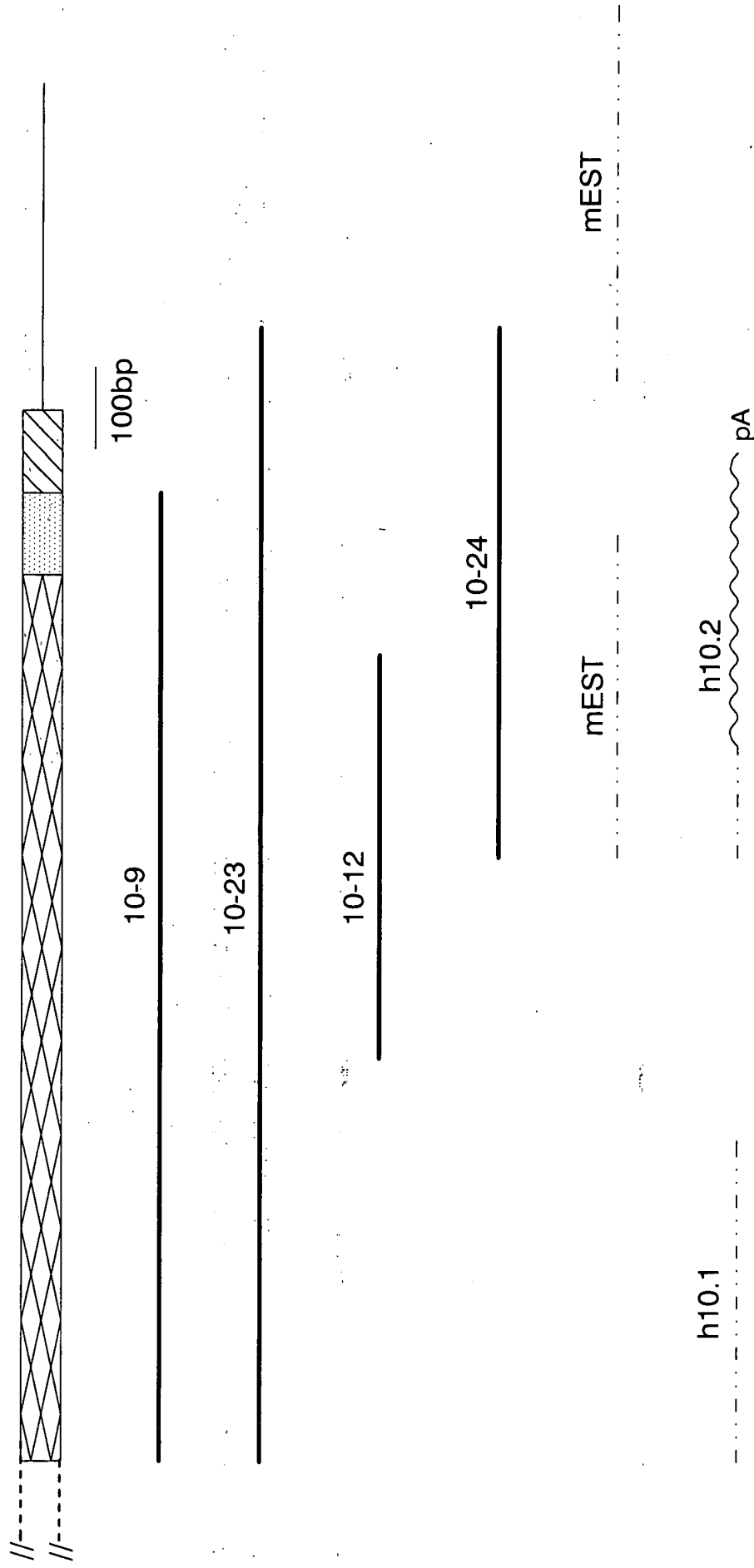


Figure 33

Figure 34

h10.1

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ACGTGCAGGGGCCACCTGGACTGTCTCCTGTCACTGCTCCAAGCAGGGGCAGAGCGGGACATCTCCAACAATCCCCGAGA
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AACGCTGCAACCGGGCTG

h10.2

GTGCAGCTCTGCTCGCGGCTGAAGGAACACATCGACAGCTTTGAGGACTGGGCGCGTCATCAAGGAGAAGGCAGAACCTCC
AAGACCTCTGGCTCACCTTTGCCGACTGCGGGTTCGAAAGGCCATTGGGAAATACCGTATAAACTCCTAGACACCTTGC
CGCTCCAGGCAGGCTGATTAGATACTGAAATACGAGAACACCCAGTAACCTGGGGCCACGGGGAGAGAGGAGTAGCCCC
TCAGACTCTTCTTACTAAGTCTCAGGACGTCGGTGTCCCAACTCCAAGGGACCTGTTGACAGACGAGGCTGCAGGCTG
CCTCCCTCTCAGCCTGGACAGCTACCAGGATCTCACTGGGTCTCAGGGCCAGAGCTTTGGCCAGAGCAGAGAACAAGAT
GTGTCAAGGAGAAGATCATTGTTTACAAACTGATGAGCAGATCCAGACCTTCTCTACCTTCAGGAATGGCAGAAACC
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Figure 35

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Figure 36A

...LEKCGWYWGPMNWEDAEMKLGKPDGSLVRDSSDPRIILSLFRSQGITHHTRMEHYRGTFSLWCHPKFEDRCQSV
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Figure 36B

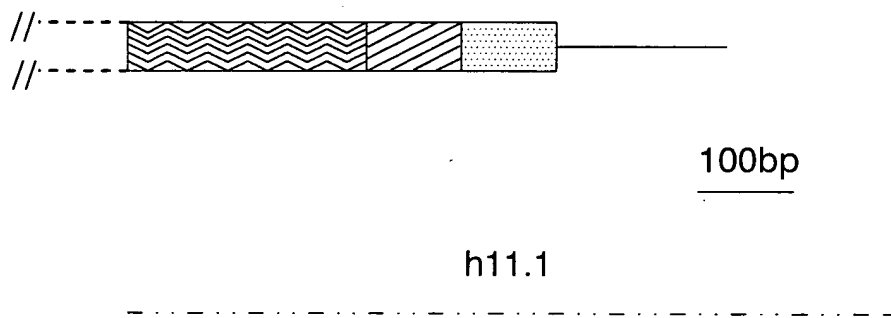


Figure 37

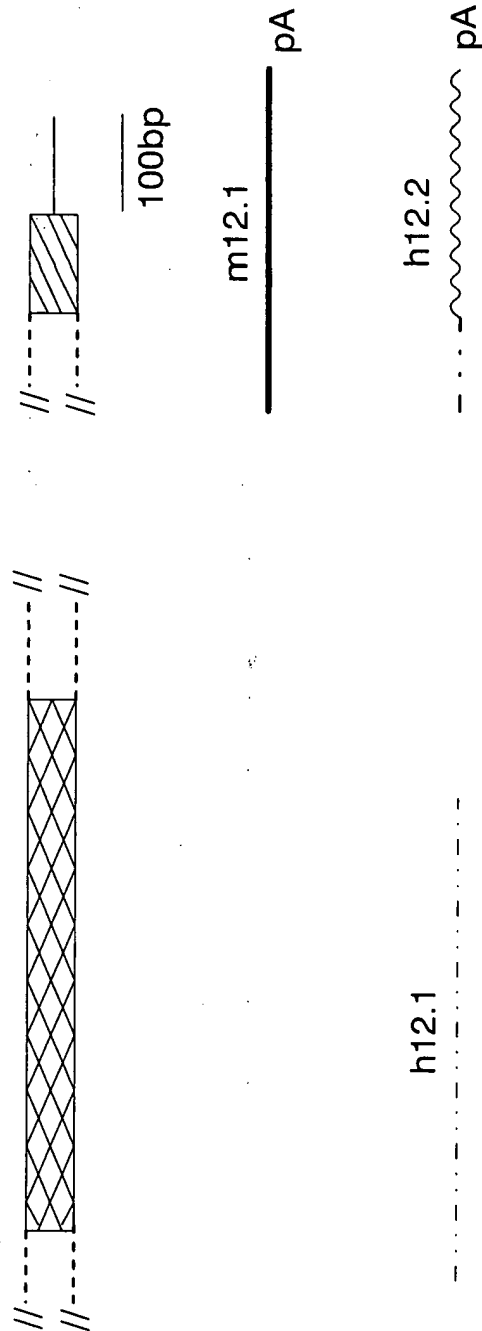


Figure 38

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gccttactcagttttatttctagtgcactttgttgtgtattatttgtttacctgaccattttctact
ttattctgctaataaactgtaattctgaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa

Figure 39

h12.1

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CTGGGGCAGATCCTAATGCAACTACTTTAGAAAGAAACGACACCATTGTTTTTAGCTGTTGAAAATGG
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GGATGGAACTCCTTGCAACCAGGCTTCTTTTCAGGAAAATGCTGAGATCATAAAATTGCTTCTTAGAA
AAGGAGCAAACAAGGAATGCCAGGATGACTTTTGAATCACACCTTTATTTGTGGCTGCTCAGTATGG
CCAAGCTAGAAAGCTTTGAAGCATACTTATTTTCATCCGGGTGCAAATGTCAATTGTCAAGCCTTGGA
CAAAGCTACC

h12.2

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Figure 40

SOCS-13

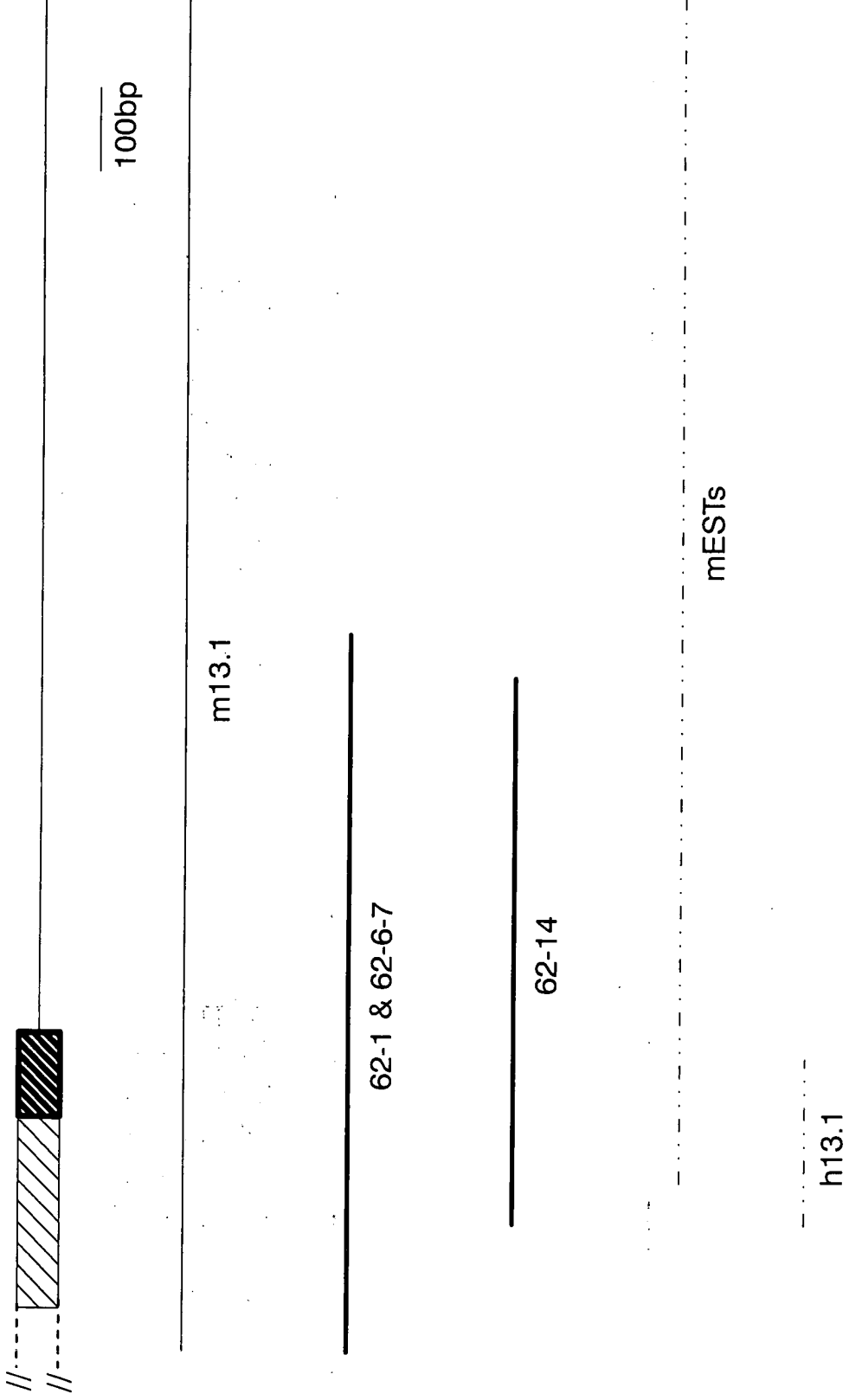


Figure 41

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Figure 42A

...GGWDLGRNRLYHDGKNQPSKTYPAFLEPDETFIVPDSFFVALDMXDGTLSFIVDGGQYMGVAFRGLKGKKLYPVVSAV
WGHCEIRMRYLNGLDPEPLPLMDLCRRSVRLALGKERLGAIPALPLPASLKAYLLYQ*

Figure 42B

AAGGGTAAAAAACTGTATCCTGTAGTGAGTGCCGTCTGGGGCCACTGTNAGATCCGAATGCGCTACT
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Figure 43



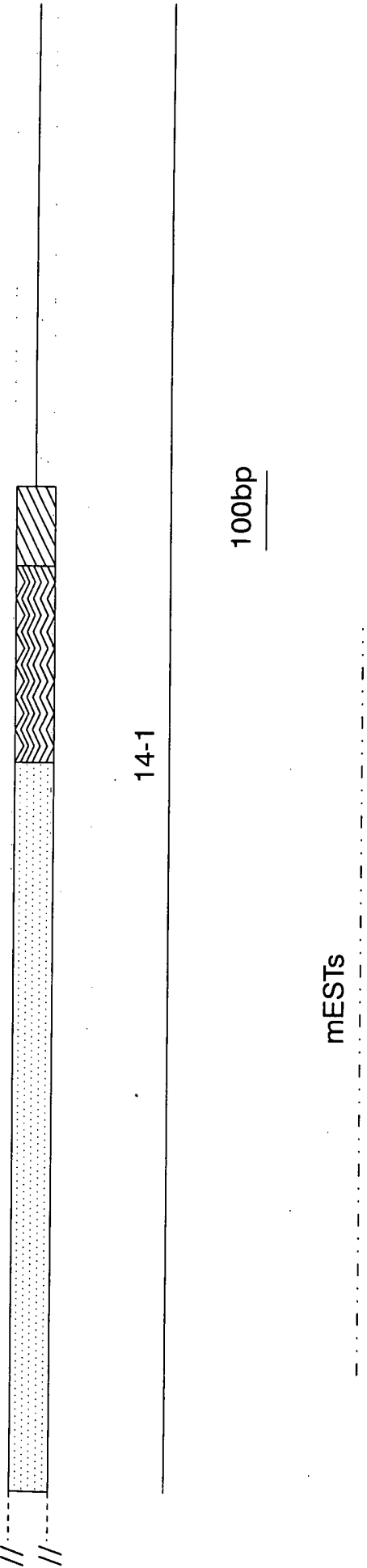


Figure 44

... AAGTGGCGGTCCTGGAGAGCAGGCGAGGCAAGTCTGACTCTGGGCTGACCGTGAGCCGGGGGGGGCTGACAGCCAGGCCT
CCGCTGGGGGAGCCGACGAGGAGCGGGAGTGCGCGGCTCTTCCGCGCTTGAGCGAGCGCCGGGTGATGGCGGTGGTGATGGCGGCAGGC
GCTCGGACAGCTCCGCTTGAGCTGAGCTCGGAGAGATCCGTCAGAAAGTCCCGAGAAACTTCCCTTTAGAAAAAGCTGAAAAACACARTATTT
ATAACACTGGAAATTGTAAAGAAATTGTTTAAATGGCTGAAAAACAATAGTAAAAATGTAGATGTACGGCCCTAAAAACAAGTCGGAGTCGAAGTGCT
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AAGATTCAATCAGTGAACCTCATGTTAGATAAGTGCCCTTCCACCTCGCTCAGATTTAGCTTTAGGTGGCAATTTATTAAACGACACACTGTT
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TTGGTCACAAACACAGCATAGAAGACAGTGACATGGATTACAGAGGATGAAATTATAACGCTGTGCAAGCTCCAGAAAAAGGAATAAGCCCAGG
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Figure 45A

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Figure 45B

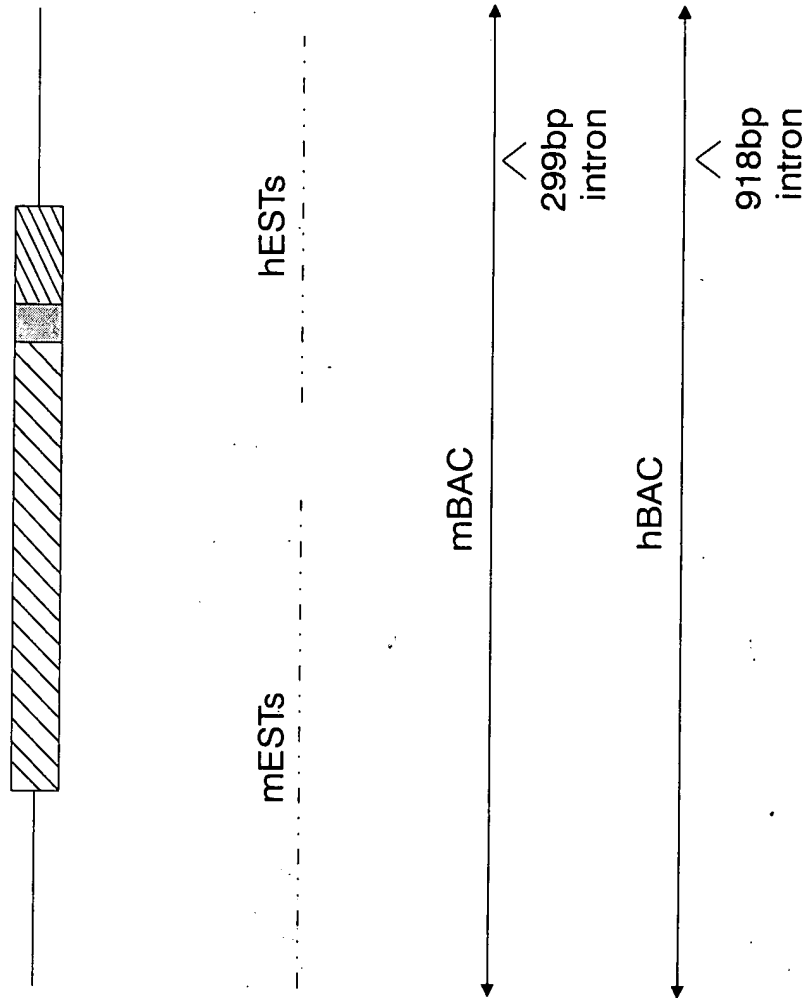


Figure 46

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A-----A

Figure 47A(i)

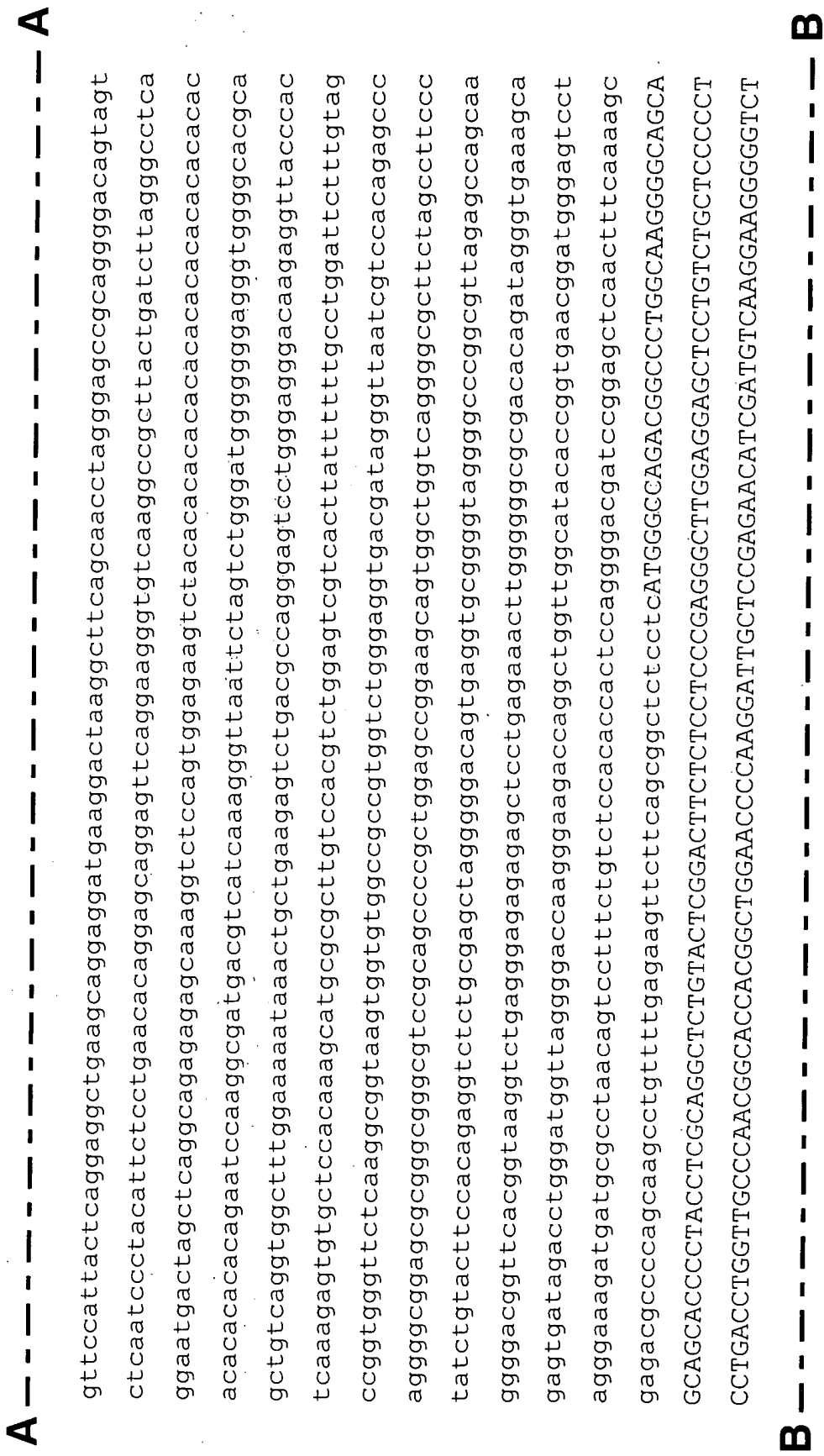


Figure 47A(ii)

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C-----C

Figure 47A(iii)

C-----C

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Figure 47A(iv)

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Figure 47B

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A-----A

Figure 48A(i)

A-----A

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B-----B

Figure 48A(ii)

B

B

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C

C

Figure 48A(iii)

C

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D

-----D

Figure 48A(iv)

D-----D

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Figure 48A(v)

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Figure 48B

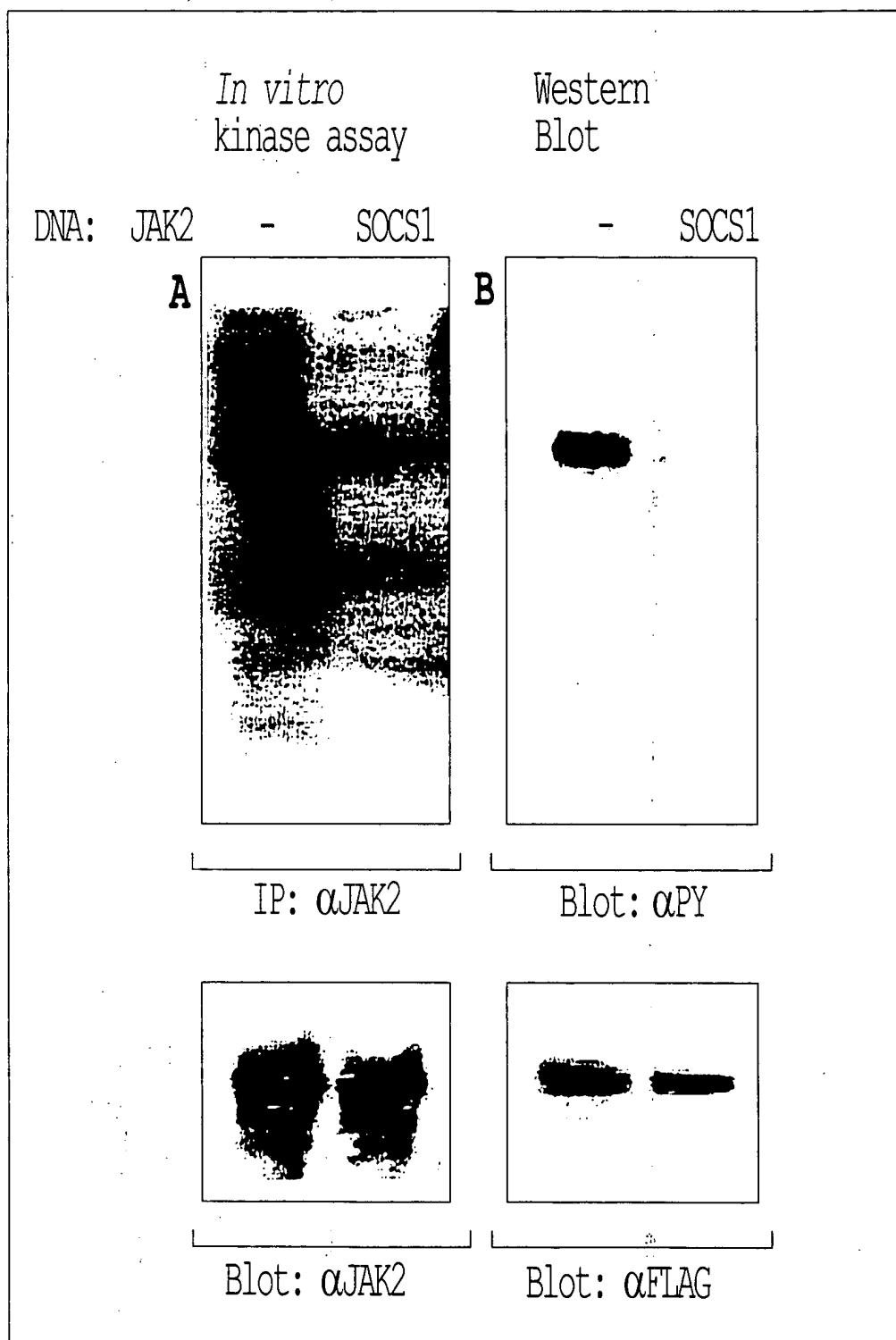


Figure 49

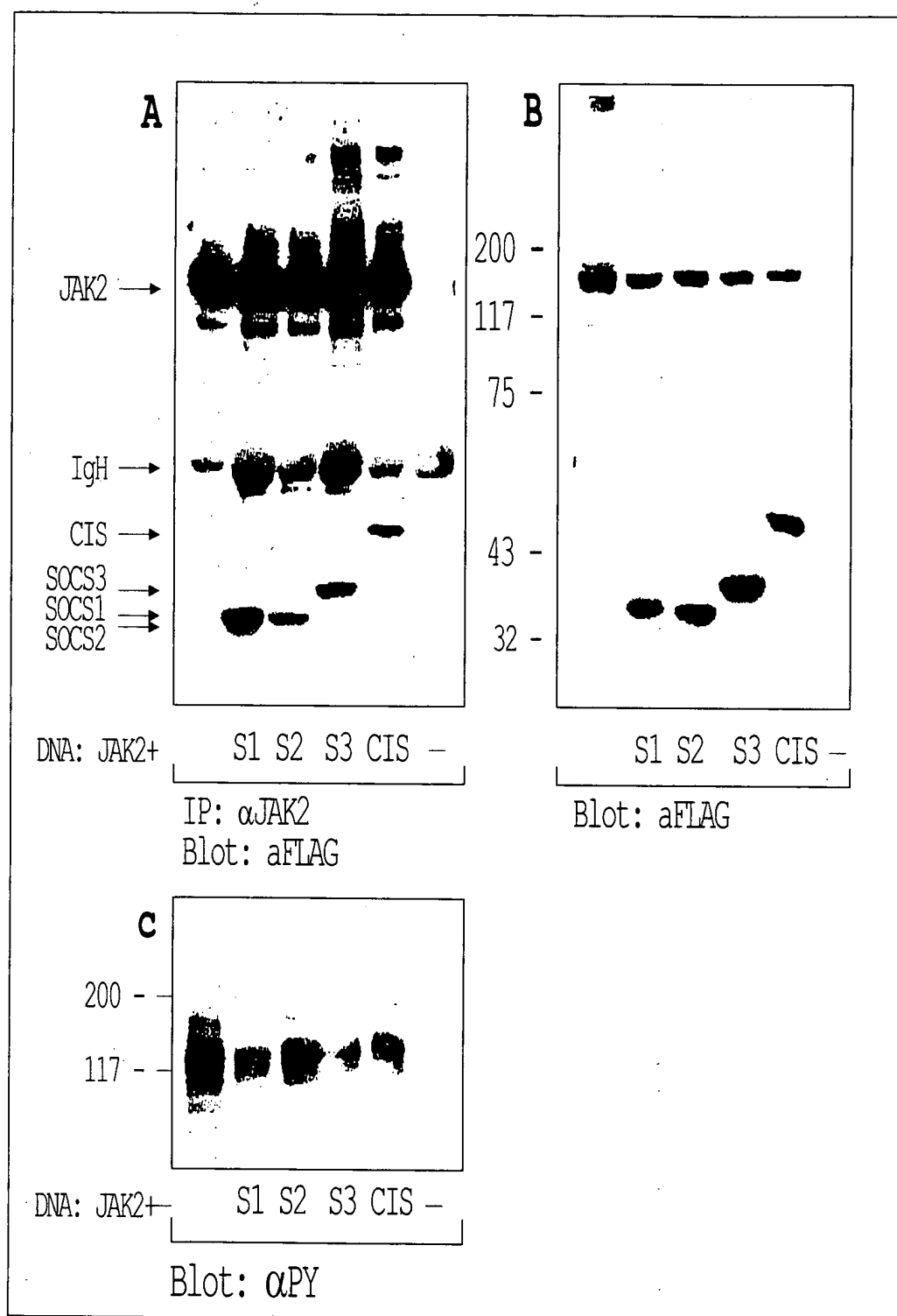
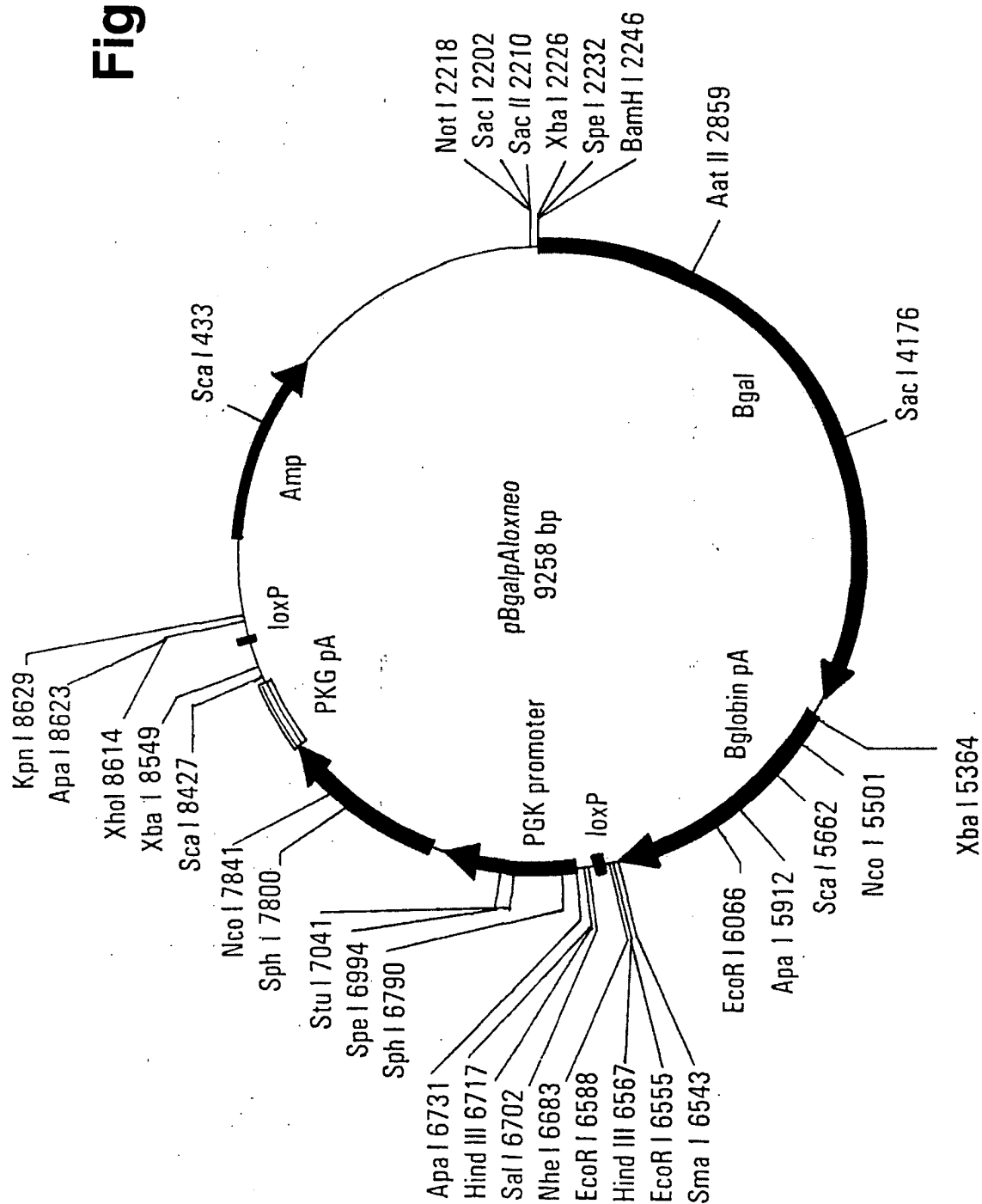
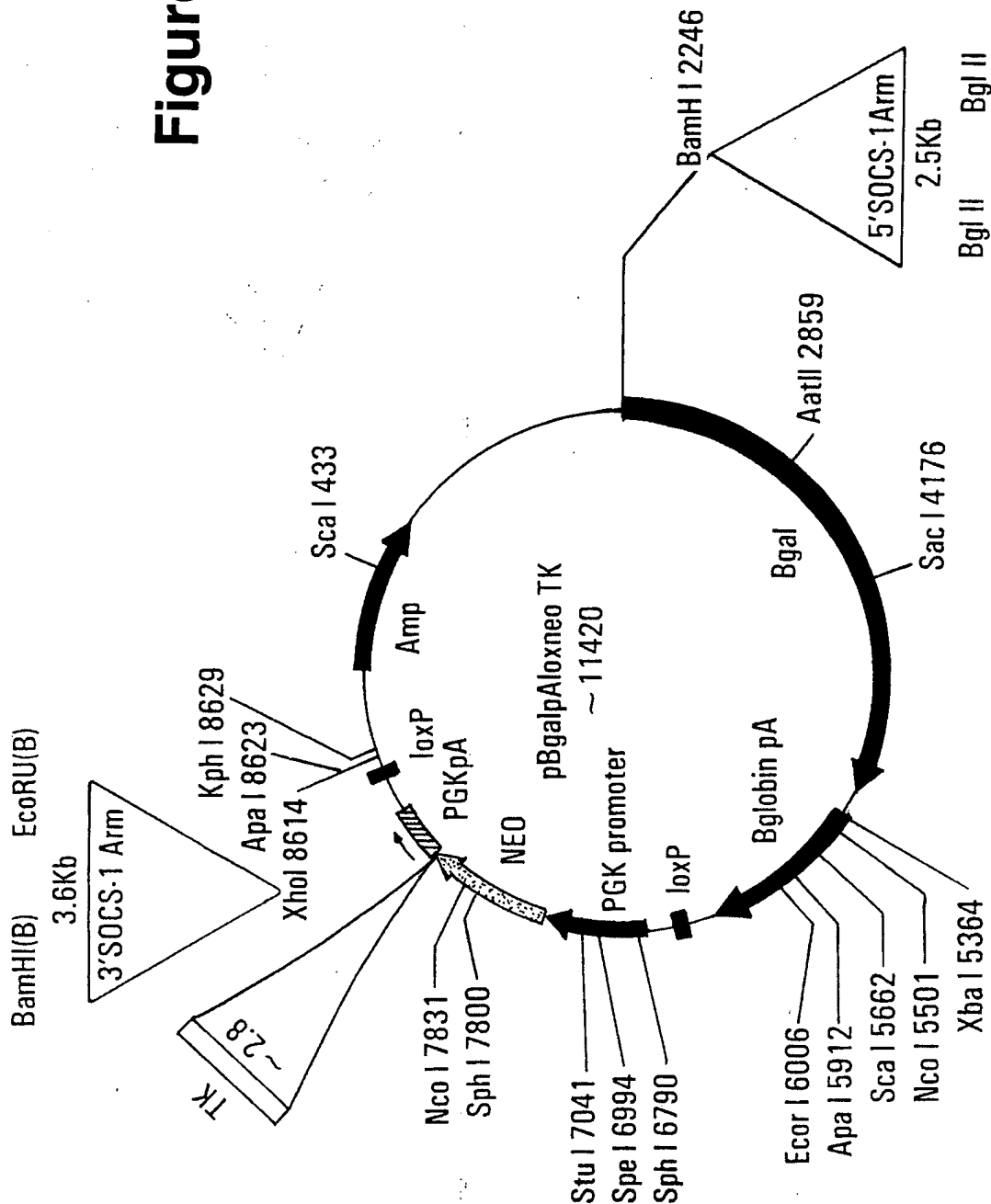


Figure 50

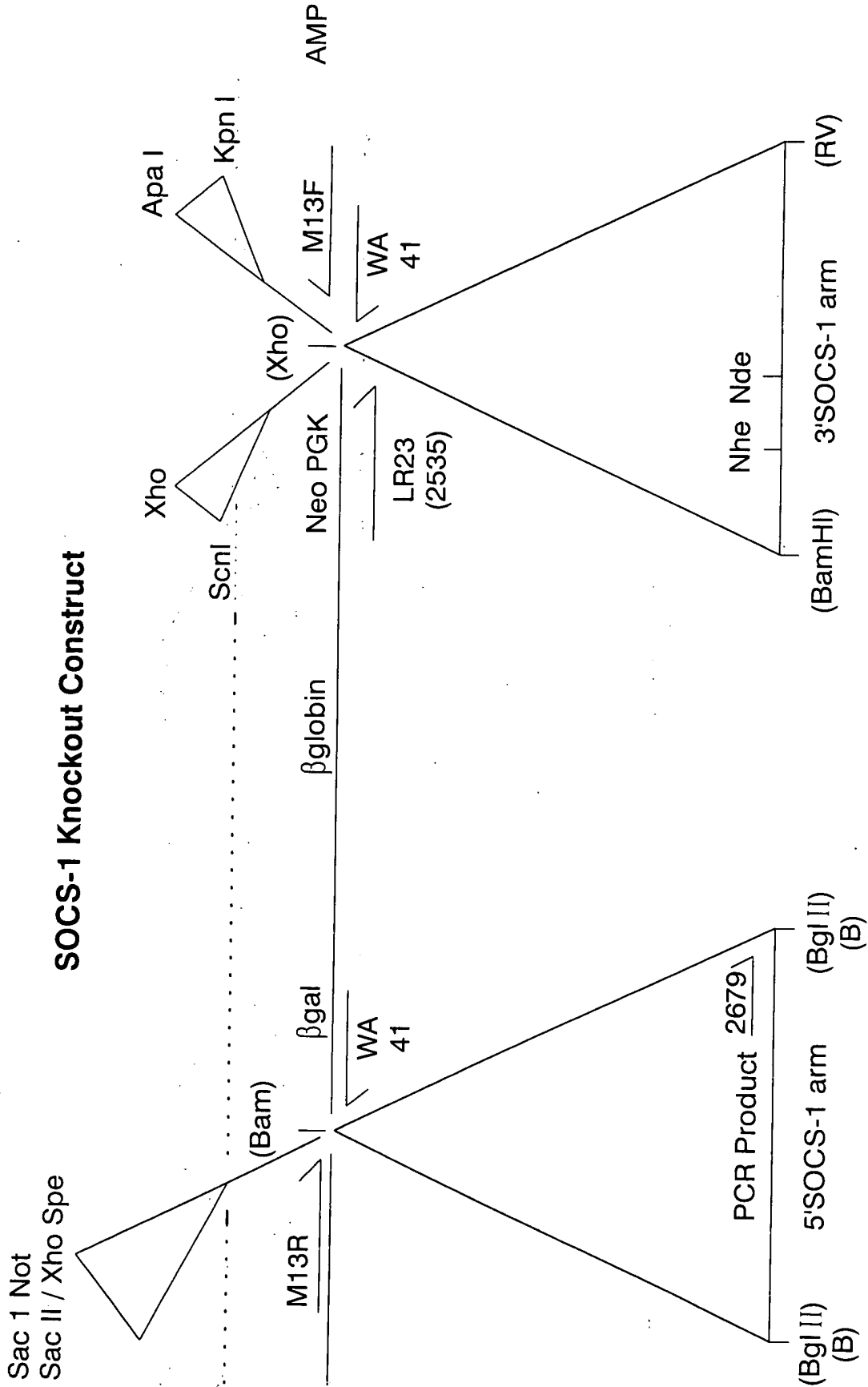
Figure 51





5'x3' SOCS-1 Arms in pBgalpAloxNeoTK

Figure 52



5' + 3' SOCS-1 arms in PBgal pA lox Neo

Figure 53

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